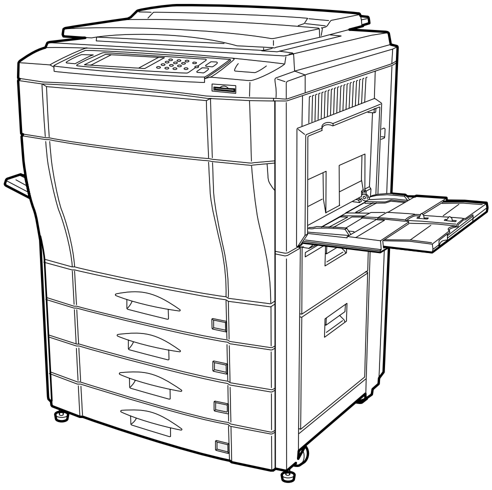
SHARP SERVICE MANUAL

CODE: 00ZARC270/F1E



DIGITAL FULL COLOR COPIER

AR-C150
AR-C250
AR-C160
MODEL AR-C270

CONTENTS

This Service Manual describes only the different points from the AR-C150/C250. For servicing of the AR-C160/C270, therefore, use this Service Manual together with that of the AR-C150/C250.

[1] CONFIGURATION. 1-1
[2] SPECIFICATIONS. 2-1
[3] CONSUMABLE PARTS. 3-1
[5] EXTERNAL VIEW AND INTERNAL STRUCTURE. 5-4A
[6] MACHINE OPERATIONS 6-1
[7] SETTING AND ADJUSTMENTS. 7-1
[8] SIMULATION. 8-1
[10] SELF DIAG MESSAGE AND TROUBLESHOOTING 10-2A
[11] MAINTENANCE AND DISASSEMBLY/ASSEMBLY 11-1
[12] BLOCK DIAGRAM. 12-1
[13] ACTUAL WIRING CHART. 13-1
[14] OTHERS 14-8A

Parts marked with "⚠" are important for maintaining the safety of the set. Be sure to replace these parts with specified ones for maintaining the safety and performance of the set.

SHARP CORPORATION

This document has been published to be used
for after sales service only.
The contents are subject to change without notice.

Cautions on laser

Wave length	$785\ \text{nm}\ ^{+10\ \text{nm}}_{-15\ \text{nm}}$
Pulse times	North America: (4.374 µs ±4.4 ns)/7 mm Europe: (5.732 µs ±5.7 ns)/7 mm
Output power	0.25 - 0.45 mW

Caution
This product contains a low power laser device. To ensure continued safety do not remove any cover or attempt to gain access to the inside of the product. Refer all servicing to qualified personnel.

For North America:

SAFETY PRECAUTIONS

This Digital Copier is rated Class 1 and complies with 21 CFR 1040.10 and 1040.11 of the CDRH standards. This means that the copier does not produce hazardous laser radiation. For your safety, observe the precautions below.

- Do not remove the cabinet, operation panel or any other covers.
- The copier's exterior covers contain several safety interlock switches. Do not bypass any safety interlock by inserting wedges or other items into switch slots.

For Europe:

CLASS 1 LASER PRODUCT

LASER KLASSE 1

LUOKAN 1 LASERLAITE

KLASS 1 LASERAPPARAT

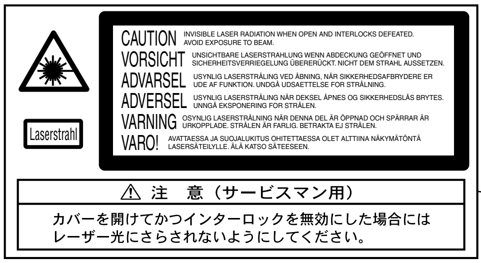
CAUTION
INVISIBLE LASER RADIATION WHEN OPEN AND INTERLOCKS DEFEATED. AVOID EXPOSURE TO BEAM.

VORSICHT
UNSICHTBARE LASERSTRAHLUNG WENN ABDECKUNG GEÖFFNET UND SICHERHEITSVERRIEGELUNG ÜBERBRÜCKT. NICHT DEM STRAHL AUSSETZEN.

ADVARSEL
USYNLIG LASERSTRÅLNING VED ÅBNING, NÅR SIKKERHEDSBRYDERE ER UDE AF FUNKTION. UNDGÅ UDSAETTELSE FOR STRÅLNING.

VAROITUS!
LAITTEEN KÄYTTÄMINEN MUULLA KUIN TÄSSÄ KÄYTTÖOHJEESSA MAINITULLA TAVALLA SAATTAA ALTISTAA KÄYTTÄJÄN TURVALLISUUSLUOKAN 1 YLITTÄVÄLLE NÄKYMÄTTÖMÄLLE LASERSÄTEILYLLE.

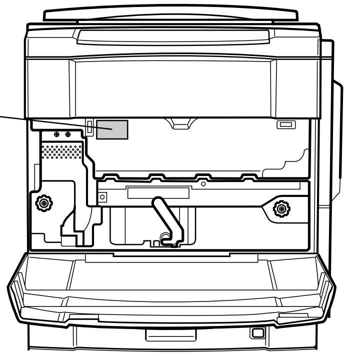
VARNING
OM APPARATEN ANVÄNDS PÅ ANNAT SÄTT ÄN I DENNA BRUKSANVISNING SPECIFICERATS, KAN ANVÄNDAREN UTSÄTTAS FÖR OSYNLIG LASERSTRÅLNING, SOM ÖVERSKRIDER GRÄNSEN FÖR LASERKLASS 1.

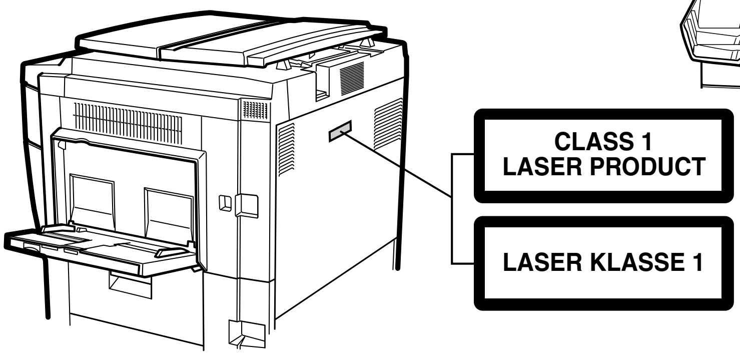

CAUTION INVISIBLE LASER RADIATION WHEN OPEN AND INTERLOCKS DEFEATED. AVOID EXPOSURE TO BEAM.
VORSICHT UNSICHTBARE LASERSTRAHLUNG WENN ABDECKUNG GEÖFFNET UND SICHERHEITSVERRIEGELUNG ÜBERERÜCKT. NICHT DEM STRAHL AUSSETZEN.
ADVARSEL USYNLIG LASERSTRÅLING VED ÅBNING, NÅR SIKKERHEDSAFBRYDERE ER UDE AF FUNKTION. UNDGÅ UDSAETTELSE FOR STRÅLNING.
ADVERSEL USYNLIG LASERSTRÅLING NÅR DEKSEL ÅPNES OG SIKKERHEDSLÅS BRYTES. UNNGÅ EKSPONERING FOR STRÅLEN.
VARNING OSYNLIG LASERSTRÅLNING NÄR DENNA DEL ÄR ÖPPNAD OCH SPÄRRAR ÄR URKOPPLADE. STRÅLEN ÄR FARLIG. BETRAKTA EJ STRÅLEN.
VARO! AVATTAESSA JA SUOJALUKITUS OHITETTAESSA OLET ALTTIINA NÄKYMÄTÖNTÄ LASERSÄTEILYLLE. ÄLÄ KATSO SÄTEESEEN.

Laserstrahl

⚠ 注　意（サービスマン用）

カバーを開けてかつインターロックを無効にした場合には
レーザー光にさらされないようにしてください。





(Caution on power source)

Before servicing, be sure to disconnect the power plug from the power outlet.

CONTENTS

(Relationship between this Service Manual and previous Service Manuals and how to utilize them) **1**

[1] CONFIGURATION

1. Main unit and option lineup 1-1
2. Block diagram 1-3

[2] SPECIFICATIONS

1. Basic specifications 2-1
2. Operating specifications 2-1
   A. Common operations 2-1
   B. Copy mode 2-1
3. Engine specifications 2-9
   A. Operation (display/operation) section 2-9
   B. Paper feeding, paper conveyance, and discharge section 2-9
   C. Scanner section 2-10
   D. Scanner section 2-10
   E. Image processing section 2-10
   F. Fuser section 2-11
   G. Drive section 2-12
   H. Engine controller 2-12
   I. Image processing controller 2-12
   J. Memory 2-12
   K. Power source 2-12
4. Safety and environmental protection standards 2-13
   A. Safety standards 2-13
   B. Environmental standards 2-13
5. Ambient conditions 2-13
   A. Space required 2-13
   B. Operating ambient conditions 2-13
   C. Ambient storage conditions 2-14
   D. Ambient conditions for transporting 2-14
   E. Standard temperature and humidity 2-14

[3] CONSUMABLE PARTS

1. Consumable parts list 3-1
2. Compatibility of Supplies for AR-C150/C250/C160/C270 (Overseas) 3-8
3. Photoconductor, developer, toner 3-9
   A. Serial number identification, effective life 3-9
4. Paper 3-10
5. Environmental conditions 3-10

[5] EXTERNAL VIEW AND INTERNAL STRUCTURE

B. Internal parts 5-4A

[6] MACHINE OPERATIONS

1. Operation mode 6-1
2. Operation menu 6-1
3. Pre-heat mode and sleep mode operations 6-5
   A. Operation timing 6-5
   B. Pre-heat mode and sleep mode operations 6-5
4. Consumable parts life and machine operation 6-8

[7] SETTING AND ADJUSTMENTS

1. Adjustment/setup items list 7-1

ADJ M1 DV doctor gap adjustment 7-2
ADJ M2 DV roller main pole position adjustment 7-2
ADJ M3 Toner concentration control reference level setting 7-3
ADJ M4 High voltage adjustment 7-3
ADJ M5 Paper skew adjustment 7-5
ADJ M6 Image density sensor adjustment 7-5
ADJ M7 Image skew adjustment (Scanner (Writing) unit) 7-6
ADJ M8 Photoconductor phase adjustment 7-8
ADJ M9A Image resist adjustment (Auto adjustment) (AR-C250/C160/C270) (New version of AR-C150) 7-10
ADJ M9 Main scanning direction copy magnification ratio adjustment (Manual adjustment) (Scanner (Writing) unit) Main scanning direction image registration adjustment (Manual adjustment) (Scanner (Writing) unit) 7-12
ADJ M10 Sub scanning direction color image resist adjustment (Manual adjustment) (Scanner (Writing) unit) (Color) 7-14
ADJ M11 Image distortion adjustment 7-18
ADJ M12 Image focus (main scanning direction copy magnification ratio) adjustment (CCD position adjustment) 7-20
ADJ M13 Sub scanning direction copy magnification ratio adjustment 7-21
ADJ M14 Image position adjustment (Main scanning direction) (Print engine) 7-21
ADJ M15 Image position adjustment (Main scanning direction) (Scanner (Writing)) 7-22
ADJ M16 Image position, image loss, void area adjustment 7-22
ADJ M17 Copy quality adjustment 7-24
ADJ M18 Document size sensor adjustment 7-44
ADJ M19 Waste toner full detection level adjustment 7-44
ADJ M20 Touch panel coordinates setting 7-44
ADJ M21 Transfer belt level adjustment (Transfer belt traveling adjustment) 7-45
ADJ M22 Fusing pressure adjustment 7-45
ADJ M23 Power voltage adjustment (AR-C100/C150/C250/C270) 7-46
ADJ M24 Manual paper feed size detection level adjustment 7-46
ADJ M25 OHP sensor adjustment 7-46

[8] SIMULATION

1. Outline and purpose 8-1
2. Code system simulation 8-1
   A. Operating procedures and operations 8-1
   B. Simulation list 8-3
   C. Details of simulation 8-11

[10] SELF DIAG MESSAGE AND TROUBLESHOOTING

5. List 10-2A
6. Details 10-6A

[11] MAINTENANCE AND DISASSEMBLY/ASSEMBLY

1. Necessary procedure for maintenance and servicing 11-1
2. List 11-4

S01 External fitting section 11-4
S02 Operation section 11-5
S03 Paper feed, paper transport section 11-6
S04 Scanner (reading) section 11-12
S05 Scanner (writing) section 11-13
S06 Image process section 11-14
S07 Fusing/paper exit sections 11-19
S08 Drive section 11-21
S09 Filter 11-23
S10 PWB 11-23
S11 Fan motor 11-24

3. Details 11-25

[12] BLOCK DIAGRAM

1. Overall block diagram 12-1

[13] ACTUAL WIRING CHART **13-1**

[14] OTHERS

1. List of adjustment/setup values 14-8A

[Necessary works when replacing the PWB or in case of memory trouble] 14-18A

(Relationship between this Service Manual and previous Service Manuals and how to utilize them)

There are following three kinds of Service Manuals for the AR-C100/C150/C160/C250.

Document name	Document code
AR-C100/C150	00ZARC150/F1E
AR-C100/C150/C250	00ZARC250/F2E
AR-C100/C150/C160/C250	00ZARC160/F1E
AR-C100/C150/C250/C160/C270	00ZARC270/F1E

The above list is made in the sequence of issuing. The later Service Manual includes changes occurred before issuing of it.

(Service Manual required for servicing of each model)

Servicing of each model requires the following service manual.

Service Manual required for servicing

MODEL	Document name	Document code
AR-C100	AR-C100/C150	00ZARC150/F1E
	AR-C100/C150/C160/C250/C270	00ZARC270/F1E
AR-C150	AR-C100/C150	00ZARC150/F1E
	AR-C100/C150/C160/C250/C270	00ZARC270/F1E
AR-C160	AR-C100/C150	00ZARC150/F1E
	AR-C100/C150/C250	00ZARC250/F2E
	AR-C100/C150/C160/C250/C270	00ZARC270/F1E
AR-C250	AR-C100/C150	00ZARC150/F1E
	AR-C100/C150/C250	00ZARC250/F2E
AR-C270	AR-C100/C150	00ZARC150/F1E
	AR-C100/C150/C250	00ZARC250/F2E
	AR-C270/C100/C160/C250/C150	00ZARC270/F1E

"List of Service Manuals and the contents" below indicates the relationship between each model and the contents of its Service Manual. Refer to it to utilize the Service Manuals.

List of Service Manuals and the contents

Documents marked with ❍ includes the latest contents and the different points. Utilize them.

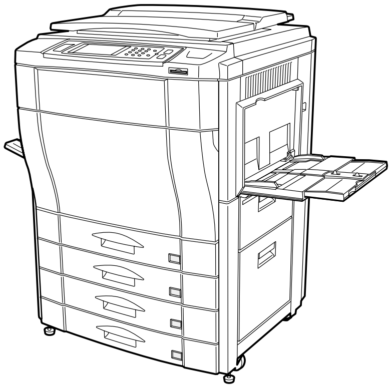
Service Manual				Service target model/Service document reference page					NOTE
Chapter	Contents of Service Manual	Document name	Document code	AR-C100	AR-C150	AR-C160	AR-C250	AR-C270	
1	Configuration	AR-C100/C150	00ZARC150/F1E						
		AR-C100/C150/C250	00ZARC250/F2E						
		AR-C100/C150/C160/C250	00ZARC160/F1E						
		AR-C100/C150/C250/C160/C270	00ZARC270/F1E	❍	❍	❍	❍	❍	Includes the contents of all the models.
2	Specifications	AR-C100/C150	00ZARC150/F1E						
		AR-C100/C150/C250	00ZARC250/F2E						
		AR-C100/C150/C160/C250	00ZARC160/F1E						
		AR-C100/C150/C250/C160/C270	00ZARC270/F1E	❍	❍	❍	❍	❍	Includes the contents of all the models.
3	Consumable parts	AR-C100/C150	00ZARC150/F1E						
		AR-C100/C150/C250	00ZARC250/F2E						
		AR-C100/C150/C160/C250	00ZARC160/F1E						
		AR-C100/C150/C250/C160/C270	00ZARC270/F1E	❍	❍	❍	❍	❍	Includes the contents of all the models.
4	Setup	AR-C100/C150	00ZARC150/F1E	❍	❍	❍	❍	❍	
5	External view and internal structure	AR-C100/C150	00ZARC150/F1E	❍	❍	❍	❍	❍	
		AR-C100/C150/C160/C250	00ZARC160/F1E						
		AR-C100/C150/C250/C160/C270	00ZARC270/F1E			❍	❍	❍	Includes the contents of AR-C100/C150/C250.
6	Machine operations	AR-C100/C150	00ZARC150/F1E						
		AR-C100/C150/C250	00ZARC250/F2E						
		AR-C100/C150/C160/C250	00ZARC160/F1E						
		AR-C100/C150/C250/C160/C270	00ZARC270/F1E			❍		❍	
7	Setup and adjustment	AR-C100/C150	00ZARC150/F1E						
		AR-C100/C150/C250	00ZARC250/F2E						
		AR-C100/C150/C160/C250	00ZARC160/F1E						
		AR-C100/C150/C250/C160/C270	00ZARC270/F1E	❍	❍	❍	❍	❍	Includes the latest information. Includes the contents of all the models.
8	Simulation	AR-C100/C150	00ZARC150/F1E						
		AR-C100/C150/C250	00ZARC250/F2E	❍	❍	❍	❍	❍	Includes the contents of AR-C100/C150/C250.
		AR-C150/C250/C160	00ZARC270/F1E						
		AR-C100/C150/C250/C160/C270	00ZARC270/F1E			❍		❍	Includes only the differences from the AR-C100/C150/C250. (However, the list includes the contents.)

Service Manual				Service target model/Service document reference page					NOTE
Chapter	Contents of Service Manual	Document name	Document code	AR-C100	AR-C150	AR-C160	AR-C250	AR-C270	
9	User program	AR-C100/C150	00ZARC150/F1E						
		AR-C100/C150/C250	00ZARC250/F2E	❍	❍	❍	❍	❍	
10	Self diag message and troubleshooting	AR-C100/C150	00ZARC150/F1E	❍	❍	❍	❍	❍	
		AR-C100/C150/C250	00ZARC250/F2E	❍	❍	❍	❍	❍	The list includes the contents of the AR-C100/C150/C250. (The details are only of the differences from the AR-C100/C150/C250.)
		AR-C100/C150/C160/C250	00ZARC160/F1E						
		AR-C100/C150/C250/C160/C270	00ZARC270/F1E			❍		❍	The details are only of the differences from the AR-C100/C150/C250. (However, the list includes the contents of all the models.)
11	Disassembly/ assembly and maintenance	AR-C100/C150	00ZARC150/F1E	❍	❍	❍	❍	❍	
		AR-C100/C150/C250	00ZARC250/F2E						Include only the differences from the AR-C100/C150.
		AR-C100/C150/C160/C250	00ZARC160/F1E						
		AR-C100/C150/C250/C160/C270	00ZARC270/F1E	❍	❍	❍	❍	❍	The maintenance list is revised. For the maintenance list of all the models, refer to this manual.
12	Block diagram	AR-C100/C150	00ZARC150/F1E	❍	❍				
		AR-C100/C150/C250	00ZARC250/F2E				❍		
		AR-C100/C150/C160/C250	00ZARC160/F1E						
		AR-C100/C150/C250/C160/C270	00ZARC270/F1E			❍		❍	Includes the contents of AR-C270.
13	Actual wiring diagram	AR-C100/C150	00ZARC150/F1E	❍	❍		❍		
		AR-C100/C150/C250	00ZARC250/F2E				❍		Includes only the differences from the AR-C100/C150/C250.
		AR-C100/C150/C160/C250	00ZARC160/F1E						
		AR-C100/C150/C250/C160/C270	00ZARC270/F1E			❍		❍	Includes the contents of AR-C270/C160.
14	Others	AR-C100/C150	00ZARC150/F1E						
		AR-C100/C150/C250	00ZARC250/F2E						
		AR-C100/C150/C160/C250	00ZARC160/F1E						
		AR-C100/C150/C250/C160/C270	00ZARC270/F1E	❍	❍	❍	❍	❍	Includes the contents of all the models.

[1] CONFIGURATION

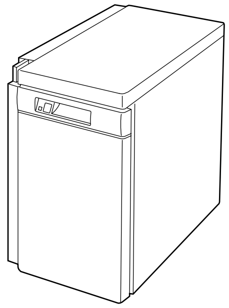
1. Main unit and option lineup

(1) Main unit lineup

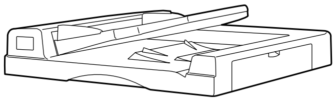


AR-C150/C250/C160/C270

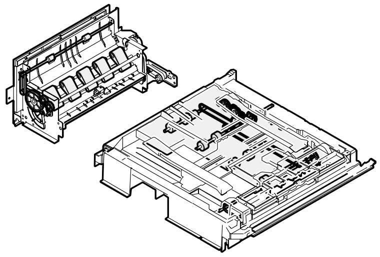
(2) Option lineup



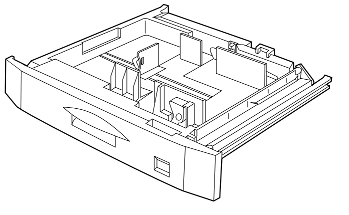
AR-LC2 (AR-C150/C250)/
Large capacity tray (excluding Japan)
AR-LC2N (AR-C160/C250/C150/C270)/
Large capacity tray (excluding Japan)



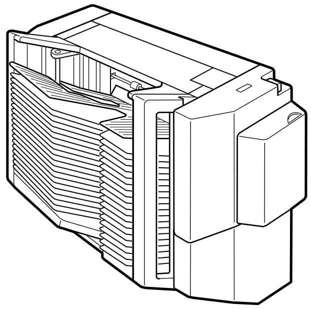
AR-RF1/Reversing automatic document feeder



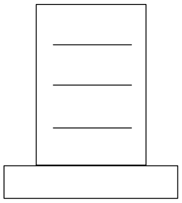
AR-DU2 (AR-C150/C250)/Duplex module
AR-DU2N (AR-C160/C250/C150/C270)/
Duplex module



AR-CS2 (AR-C150/C250)/500 sheet paper drawer
AR-CS2N (AR-C160/C250/C150/C270)/
500 sheet paper drawer



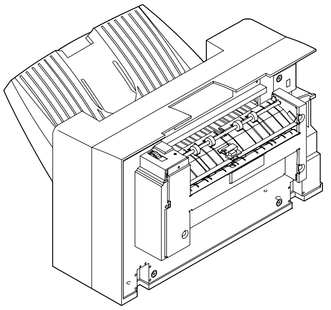
AR-SS2/20 bin staple sorter



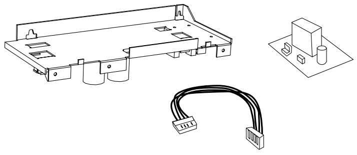
AR-PE1 (AR-C150/C250)/
Fiery Printer controller

Printer engine I/F kit (AR-C150/C250)	(AR-PX1)
	(AR-PX2) (North America)

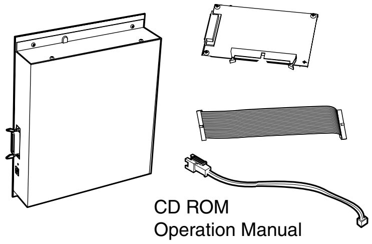
AR-VR2/Original cover (excluding Japan)



AR-FN4 Finisher
(Use for AR-C250/C160/C270)



AR-PX3/PX4 (AR-C160/C270)/
Printer power unit



AR-PE2 (AR-C160/C270)/
Built-in type printer controller (with I/F PWB)

NOTE: For USA and UK, the paper exit tray (AR-TE1) is an option. For the other destinations, it is a standard provision.

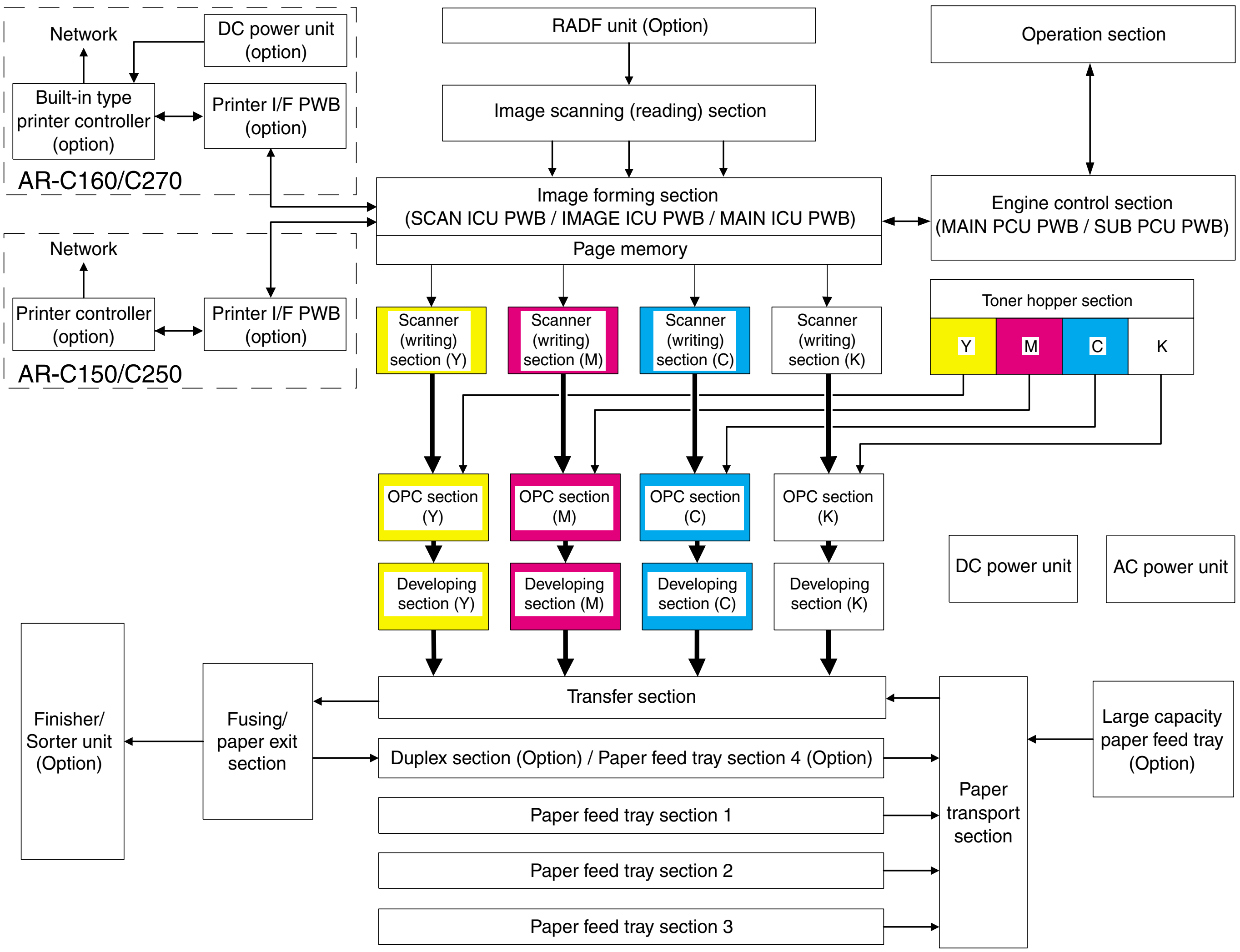
(3) Option combinations

Option		Model	Power source	Note
Item	Model			
Large capacity tray	AR-LC2	AR-C150/C250	Supplied from the copier body.	Outside of Japan only
	AR-LC2N	AR-C150/C250/C160/C270	Supplied from the copier body.	Outside of Japan only
Reversing automatic document feeder	AR-RF1	AR-C150/C250/C160/C270	Supplied from the copier body.	
Duplex module	AR-DU2	AR-C150/C250	Supplied from the copier body.	
	AR-DU2N	AR-C150/C250/C160/C270	Supplied from the copier body.	
500 sheet paper drawer	AR-CS2	AR-C150/C250	Supplied from the copier body.	
	AR-CS2N	AR-C150/C250/C160/C270	Supplied from the copier body.	
20 bin staple sorter	AR-SS2	AR-C150/C250/C160/C270	Supplied from the copier body.	
Department supervision card reader (Japan only)	AR-EC1	AR-C150/C250/C160/C270	Supplied from the copier body.	Japan only
Fiery Printer controller/Printer engine I/F kit	AR-PE1/ AR-PX1/ AR-PX2	AR-C150/C250	Supplied from the copier body. (AR-PX1)	
Fiery printer controller (built-in type, with printer connection kit)/DC power unit	AR-PE2/ AR-PX3/ AR-PX4	AR-C160/C270	Supplied from the exclusive DC power unit.	
Original cover	AR-VR2	AR-C150/C250/C160/C270		Outside of Japan only
Finisher	AR-FN4	AR-C250/C160/C270	Supplied from the copier body	Sorting is disabled in the copy mode.

Item	Model	Finisher	Fiery Printer controller	Department supervision card reader (Japan only)	20 bin staple sorter	LCC (Outside of Japan only)	500 sheet paper drawer	Duplex module	RADF
RADF	AR-RF1	❍	❍	❍	❍	❍	❍	❍	—
Duplex module	AR-DU2	❍	❍	❍	❍	❍	×	—	—
	AR-DU2N	❍	❍	❍	❍	❍	×	—	—
Paper feed tray	AR-CS2	❍	❍	❍	❍	❍	—	—	—
	AR-CS2N	❍	❍	❍	❍	❍	—	—	—
LCC (Outside of Japan only)	AR-LC2	❍	❍	❍	❍	—	—	—	—
	AR-LC2N	❍	❍	❍	❍	—	—	—	—
20 bin staple sorter	AR-SS2	×	❍	❍	—	—	—	—	—
Department supervision card reader (Japan only)	AR-EC1	❍	▲	—	—	—	—	—	—
Fiery Printer controller/Printer I/F kit	AR-PE1/ AR-PX1/ AR-PX2	❍	—	—	—	—	—	—	—
Fiery printer controller (built-in type, with printer connection kit)/DC power unit	AR-PE2/ AR-PX3/ AR-PX4	❍	—	—	—	—	—	—	—
Finisher	AR-FN4	—	—	—	—	—	—	—	—

❍: Possible ×: Not possible ▲: Possible; however, only operational in copy mode (does not operation in printer mode)

2. Block diagram


Network
DC power unit (option)
Built-in type printer controller (option)
Printer I/F PWB (option)
AR-C160/C270
Network
Printer controller (option)
Printer I/F PWB (option)
AR-C150/C250
RADF unit (Option)
Image scanning (reading) section
Image forming section (SCAN ICU PWB / IMAGE ICU PWB / MAIN ICU PWB)
Page memory
Operation section
Engine control section (MAIN PCU PWB / SUB PCU PWB)
Toner hopper section
Y
M
C
K
Scanner (writing) section (Y)
Scanner (writing) section (M)
Scanner (writing) section (C)
Scanner (writing) section (K)
OPC section (Y)
OPC section (M)
OPC section (C)
OPC section (K)
Developing section (Y)
Developing section (M)
Developing section (C)
Developing section (K)
DC power unit
AC power unit
Finisher/ Sorter unit (Option)
Fusing/ paper exit section
Transfer section
Duplex section (Option) / Paper feed tray section 4 (Option)
Paper feed tray section 1
Paper feed tray section 2
Paper feed tray section 3
Paper transport section
Large capacity paper feed tray (Option)

[2] SPECIFICATIONS

1. Basic specifications

(1) Type

Type	Console

Operation mode	Format
Copy mode	Full-color digital (electronic photographic)

(2) Target users

Mode	Volume of usage	
Copy mode	Scope	5,000 to 20,000 sheets/month
	Average copy volume	8,000 to 12,000 sheets/month

(3) External dimensions

	AR-C150/C250/C160/C270	AR-C100
Packaged	—	—
Main unit	750 × 695 × 1010mm (29.5 × 27.4 × 39.8) (height: floor to glass surface) 750 × 695 × 1060mm (29.5 × 27.4 × 41.7) (height: floor to OC top surface)	725 × 695 × 1010mm (28.5 × 27.4 × 39.8) (height: floor to glass surface) 725 × 695 × 1060mm (28.5 × 27.4 × 41.7) (height: floor to OC top surface)

(4) Weight

	AR-C150/C250/C160/C270	AR-C100
Packaged	About 164.6Kg (363 lbs)	About 167.6Kg (370 lbs)
Main unit	152Kg (335 lbs)	155Kg (342 lbs)

(5) Machine life

Total (copy and print) volume	800,000 sheets
Lifetime	5 years

2. Operating specifications

A. Common operations

(1) Warm-up time/Jam recovery time

a. Warm-up time (ambient temp. of 20°C)

After turned on	AR-C100/C150	Max. 200 seconds
	AR-C250/C160/C270	Max. 330 seconds
Recovery from warm-up mode	AR-C100	130 seconds
	AR-C150/C250/C160/C270	30 seconds

b. Jam recovery time

Jam recovery time	Under 30 seconds (conditions: door open/fusing unit drawn)
	Under 8 seconds (conditions: door open)

B. Copy mode

(1) Document size

Scan mode	Paper type	Location	Dimensions		Paper size		Paper sizes	Note
			Min.	Max.	Min.	Max.		
Original stand mode	AB Series	Japan			B5	A3	A3, B4, A4, A4R, B5, B5R	
		Australia			A5		A3, A4, A4R, A5, 216 × 330mm	
		Other A					A3, B4, A4, A4R, A5	
		Other B			B5		A3, B4, A4, A4R, B5, B5R	
	Inch Series				8.5 × 5.5	11 × 17	11 × 17, 8.5 × 14, 8.5 × 11, 8.5 × 11R, 8.5 × 5.5	
RADF mode	AB Series	Japan			A5	A3	A3, B4, A4, A4R, B5, B5R, A5	
		Australia					A3, A4, A4R, A5, 216 × 330mm, B4	
		Other A					A3, B4, A4, A4R, A5	
		Other B					A3, B4, A4, A4R, B5, B5R, A5	
	Inch Series				8.5 × 5.5	11 × 17	11 × 17, 8.5 × 14, 8.5 × 11, 8.5 × 11R, 8.5 × 5.5	

(2) Paper size

Paper type	Dimensions		Paper size		Paper sizes	Note
	Min.	Max.	Min.	Max.		
AB Series	—	—	A6 (A6R) Postcard	A3 wide (305 × 457 mm)	A3 wide (305 × 457 mm) A3, B4, A4, A4R, B5, B5R, A5	
Inch Series	—	—	8.5 × 5.5	12 × 18	12 × 18, 11 × 17, 8.5 × 14, 8.5 × 11, 8.5 × 11R, 8.5 × 5.5	

(3) Exposure

a. Exposure mode

(AR-C100/C150)

Copy mode				Model	Image process, gradation control	Note
Color		Text/Photo mode	Manual	AR-C100/C150	Area separation, filter process, dither pattern	
			Auto			Color balance, density fixed
		Text mode	Manual	AR-C150		
			Auto			Color balance, density fixed
		Printed Photo mode	Manual	AR-C150	Filter process, dither pattern	
		Photo mode	Manual	AR-C100/C150		
		Map mode	Manual	AR-C150		
Monochrome		Text/Photo mode	Manual	AR-C150	Area separation, filter process, dither pattern	
			Auto (Non pre-scan mode)	AR-C150		Pre-scan can be inhibited with the user program.
			Auto (Pre-scan mode)	AR-C150		
		Text mode	Manual	AR-C150		
			Auto (Non pre-scan mode)	AR-C150		Pre-scan can be inhibited with the user program.
			Auto (Pre-scan mode)	AR-C150		
		Printed Photo mode	Manual	AR-C150	Filter process, dither pattern	
		Photo mode	Manual	AR-C100/C150		
		Map mode	Manual	AR-C100/C150		

(AR-C250)

Copy mode				Model	Image process, gradation control	Note
Color	Copy document mode	Text/Printed Photo mode	Manual	AR-C250	Area separation, filter process, dither pattern	Pre-scan operation allowed
		Printed Photo mode	Manual	AR-C250	Filter process, dither pattern	Pre-scan operation allowed
		Text mode	Manual	AR-C250	Area separation, filter process, dither pattern	Pre-scan operation allowed
	Normal mode	Text mode	Manual	AR-C250	Area separation, filter process, dither pattern	
			Auto			Color balance, density fixed.
		Text/Printed Photo mode	Manual	AR-C250		
			Auto			Color balance, density fixed.
		Printed Photo mode	Manual	AR-C250	Filter process, dither pattern	
		Photo mode	Manual	AR-C250		
		Text/Photo mode	Manual	AR-C250	Area separation, filter process, dither pattern	
			Auto			Color balance, density fixed.
		Map mode	Manual	AR-C250	Filter process, dither pattern	
Monochrome	Copy document mode	Text/Printed Photo mode	Manual	AR-C250	Area separation, filter process, dither pattern	
		Printed Photo mode	Manual	AR-C250	Filter process, dither pattern	
		Text mode	Manual	AR-C250	Area separation, filter process, dither pattern	
	Normal mode	Text mode	Manual	AR-C250	Area separation, filter process, dither pattern	
			Auto (Non pre-scan mode)	AR-C250		Pre-scan oepration can be inhibited with the user program.
			Auto (Pre-scan mode)	AR-C250		
		Text/Printed Photo mode	Manual	AR-C250		
			Auto (Non pre-scan mode)	AR-C250		Pre-scan oepration can be inhibited with the user program.
			Auto (Pre-scan mode)	AR-C250		
		Printed Photo mode	Manual	AR-C250	Filter process, dither pattern	
		Photo mode	Manual	AR-C250		
		Text/Photo mode	Manual	AR-C250	Area separation, filter process, dither pattern	
			Auto (Non pre-scan mode)	AR-C250		Pre-scan oepration can be inhibited with the user program.
			Auto (Pre-scan mode)	AR-C250		
		Map mode	Manual	AR-C250	Filter process, dither pattern	

(AR-C160/C270)

Copy mode				Model	Image process, gradation control	Note
Color	Copy document mode	Text/Printed Photo mode	Manual	AR-C160/C270	Area separation, filter process, dither pattern	Pre-scan operation allowed
		Printed Photo mode	Manual	AR-C160/C270	Filter process, dither pattern	Pre-scan operation allowed
		Text mode	Manual	AR-C160/C270	Area separation, filter process, dither pattern	Pre-scan operation allowed
	Normal mode	Text mode	Manual	AR-C160/C270	Area separation, filter process, dither pattern	
			Auto			Color balance, density fixed.
		Text/Printed Photo mode	Manual	AR-C160/C270		
			Auto			Color balance, density fixed.
		Printed Photo mode	Manual	AR-C160/C270	Filter process, dither pattern	
		Photo mode	Manual	AR-C160/C270		
		Text/Photo mode	Manual	AR-C160/C270	Area separation, filter process, dither pattern	
			Auto			Color balance, density fixed.
		Map mode	Manual	AR-C160/C270	Filter process, dither pattern	
	Color enhancement mode	Text mode	Manual	AR-C160/C270	Area separation, filter process, dither pattern	Pre-scan operation allowed
			Auto			Pre-scan operation allowed
		Text/Printed Photo mode	Manual	AR-C160/C270		Pre-scan operation allowed
			Auto			Pre-scan operation allowed
		Printed Photo mode	Manual	AR-C160/C270	Filter process, dither pattern	Pre-scan operation allowed
		Photo mode	Manual	AR-C160/C270		Pre-scan operation allowed
		Text/Photo mode	Manual	AR-C160/C270	Area separation, filter process, dither pattern	Pre-scan operation allowed
			Auto			Pre-scan operation allowed
		Map mode	Manual	AR-C160/C270	Filter process, dither pattern	Pre-scan operation allowed
Monochrome	Copy document mode	Text/Printed Photo mode	Manual	AR-C160/C270	Area separation, filter process, dither pattern	
		Printed Photo mode	Manual	AR-C160/C270	Filter process, dither pattern	
		Text mode	Manual	AR-C160/C270	Area separation, filter process, dither pattern	
	Normal mode	Text mode	Manual	AR-C160/C270	Area separation, filter process, dither pattern	
			Auto (Non pre-scan mode)	AR-C160/C270		Pre-scan operation can be inhibited with the user program.
			Auto (Pre-scan mode)	AR-C160/C270		
		Text/Printed Photo mode	Manual	AR-C160/C270		
			Auto (Non pre-scan mode)	AR-C160/C270		Pre-scan operation can be inhibited with the user program.
			Auto (Pre-scan mode)	AR-C160/C270		
		Printed Photo mode	Manual	AR-C160/C270	Filter process, dither pattern	
		Photo mode	Manual	AR-C160/C270		
		Text/Photo mode	Manual	AR-C160/C270	Area separation, filter process, dither pattern	
			Auto (Non pre-scan mode)	AR-C160/C270		Pre-scan operation can be inhibited with the user program.
			Auto (Pre-scan mode)	AR-C160/C270		
		Map mode	Manual	AR-C160/C270	Filter process, dither pattern	

Models and copy mode

Models and the copy mode are shown below. The copy mode differs depending on the model.
The copy mode (Note *1) is substantially same as the copy mode (Note *2), and they differ in display.
Since the descriptions on the copy mode of the AR-C250/C160 is the most accurate, refer to it.

Copy mode							Image process, gradation control	NOTE
			AR-C250	AR-C160/C270	AR-C150	AR-C100		
Color	Copy document mode	Manual	TEXT/ PRINTED PHOTO MODE	TEXT/ PRINTED PHOTO MODE	—	—	Area separation, filter process, dither pattern	Pre-scan operation allowed
		Manual	PRINTED PHOTO MODE	PRINTED PHOTO MODE	—	—	Filter process, dither pattern	Pre-scan operation allowed
		Manual	TEXT MODE	TEXT MODE	—	—	Area separation, filter process, dither pattern	Pre-scan operation allowed
	Normal mode	Manual	TEXT MODE	TEXT MODE	TEXT MODE	—	Area separation, filter process, dither pattern	
		Auto						Color balance, density fixed.
		Manual	TEXT/ PRINTED PHOTO MODE (*1)	TEXT/ PRINTED PHOTO MODE (*1)	TEXT/PHOTO MODE (*2)	TEXT/PHOTO MODE (*2)		
		Auto						Color balance, density fixed.
		Manual	PRINTED PHOTO MODE	PRINTED PHOTO MODE	PRINTED PHOTO MODE	—	Filter process, dither pattern	
		Manual	PHOTO MODE	PHOTO MODE	PHOTO MODE	PHOTO MODE		
		Manual	TEXT/PHOTO MODE	TEXT/PHOTO MODE	—	—	Area separation, filter process, dither pattern	
		Auto						Color balance, density fixed.
		Manual	MAP MODE	MAP MODE	MAP MODE	—	Filter process, dither pattern	
	Color enhancement mode	Manual	—	TEXT MODE	—	—	Area separation, filter process, dither pattern	Pre-scan operation allowed
		Auto						Pre-scan operation allowed
		Manual	—	TEXT/ PRINTED PHOTO MODE (*1)	—	—		Pre-scan operation allowed
		Auto						Pre-scan operation allowed
		Manual	—	PRINTED PHOTO MODE	—	—	Filter process, dither pattern	Pre-scan operation allowed
		Manual	—	PHOTO MODE	—	—		Pre-scan operation allowed
		Manual	—	TEXT/PHOTO MODE	—	—	Area separation, filter process, dither pattern	Pre-scan operation allowed
		Auto						Pre-scan operation allowed
		Manual	—	MAP MODE	—	—	Filter process, dither pattern	Pre-scan operation allowed
Monochrome	Copy document mode	Manual	TEXT/ PRINTED PHOTO MODE	TEXT/ PRINTED PHOTO MODE	—	—	Area separation, filter process, dither pattern	
		Manual	PRINTED PHOTO MODE	PRINTED PHOTO MODE	—	—	Filter process, dither pattern	
		Manual	TEXT MODE	TEXT MODE	—	—	Area separation, filter process, dither pattern	
	Normal mode	Manual	TEXT MODE	TEXT MODE	TEXT MODE	—	Area separation, filter process, dither pattern	
		Auto (Non pre-scan mode)						Pre-scan operation can be inhibited with the user program.
		Auto (Pre-scan mode)						
		Manual	TEXT/ PRINTED PHOTO MODE (*1)	TEXT/ PRINTED PHOTO MODE (*1)	TEXT/PHOTO MODE (*2)	—		
		Auto (Non pre-scan mode)						Pre-scan operation can be inhibited with the user program.
		Auto (Pre-scan mode)						
		Manual	PRINTED PHOTO MODE	PRINTED PHOTO MODE	PRINTED PHOTO MODE	—	Filter process, dither pattern	
		Manual	PHOTO MODE	PHOTO MODE	PHOTO MODE	PHOTO MODE		
		Manual	TEXT/PHOTO MODE	TEXT/PHOTO MODE	—	—	Area separation, filter process, dither pattern	
		Auto (Non pre-scan mode)						Pre-scan operation can be inhibited with the user program.
		Auto (Pre-scan mode)						
		Manual	MAP MODE	MAP MODE	MAP MODE	MAP MODE	Filter process, dither pattern	

b. Relationship between pre-scan operations and the copy mode

Copy mode		Color Copy			B/W Copy	
		COPY OF COPY mode ON	COPY OF COPY mode OFF	Color enhancement mode (AR-C160/C270 only)	COPY OF COPY mode ON	COPY OF COPY mode OFF
AUTO	TEXT/ PRTD.PHOTO	NO (Switch to Manual mode)	YES	YES	NO (Switch to Manual mode)	YES
	TEXT/PHOTO	NO (Switch to Manual mode)	YES	YES	NO (Switch to Manual mode)	YES
	TEXT	NO (Switch to Manual mode)	YES	YES	NO (Switch to Manual mode)	YES
MANUAL	TEXT/ PRTD.PHOTO	YES	YES	YES	YES	YES
	TEXT/PHOTO	NO Key is not displayed	YES [COPY OF COPY] key is not displayed	YES	NO Key is not displayed	YES [COPY OF COPY] key is not displayed
	PRINTED PHOTO	YES	YES	YES	YES	YES
	PHOTO	NO Key is not displayed	YES [COPY OF COPY] key is not displayed	YES	NO Key is not displayed	YES [COPY OF COPY] key is not displayed
	TEXT	YES	YES	YES	YES	YES
	MAP	NO Key is not displayed	YES [COPY OF COPY] key is not displayed	YES	NO Key is not displayed	YES [COPY OF COPY] key is not displayed

c. Resolution

- Read

Main scanning direction	Sub scanning direction
Basic resolution	Basic resolution
600dpi	600dpi

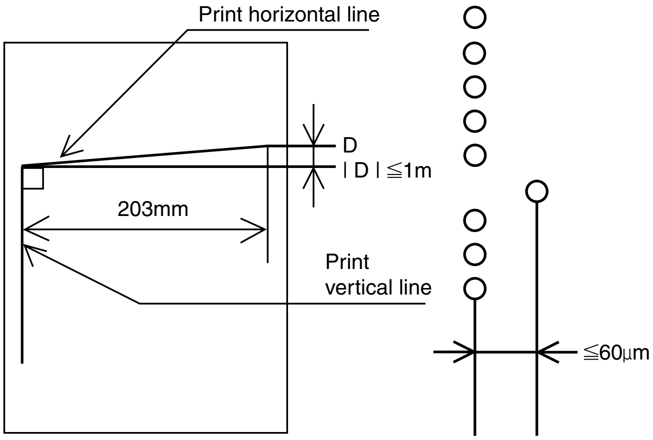
- Write

Main scanning direction	Sub scanning direction
Basic resolution	Basic resolution
600dpi	600dpi

d. Gradation/image processing

Scanning	Printing
256 gradations (8bit)	256 gradations (8bit)

e. Distortion



f. Toner save mode

Toner save percentage	Approx 15% ∗ Can only be set for monochrome mode (set by key operator) (Set by simulation in Japan and the U.K.)

(4) Copy magnification

a. Copy magnification (independent magnification by direction is possible)

Main scanning direction		Sub scanning direction	
Mode	Magnification range/fixed magnification	Mode	Magnification range/fixed magnification
Zoom mode	25/50 to 400% ∗	Zoom mode	25/50 to 400%
Fixed magnification mode (AB Series)	25, 50, 70, 81, 86, 100, 115, 122, 141, 200, 400%	Fixed magnification mode (AB Series)	25, 50, 70, 81, 86, 100, 115, 122, 141, 200, 400%
Fixed magnification mode (Inch Series)	25, 50, 64, 77, 95, 100, 121, 129, 141, 200, 400%	Fixed magnification mode (Inch Series)	25, 50, 64, 77, 95, 100, 121, 129, 141, 200, 400%

∗ The minimum copy magnification for the AR-C100 is 50%.

b. Copy magnification precision

Main scanning direction		Sub scanning direction	
Copy magnification	Magnification precision	Copy magnification	Magnification precision
Normal copy	100% ± 0.8%	Normal copy	100% ± 0.8%
Enlargement copy	Set magnification ± 1.0%	Enlargement copy	Set magnification ± 1.0%
Reduction copy	Set magnification ± 1.0%	Reduction copy	Set magnification ± 1.0%

c. Zoom method

Main scanning direction	Performed through image processing
Sub scanning direction	Performed by changing image processing and scanning speed

(5) Job speed

Copy method for each copy mode

	Black-and-white copy		Color copy		A3 wide copy
	Up to A4/LT	B4/RG to A3/WLT	Up to A4/LT	B4/RG to A3/WLT	
Single-side copy	1 scan/ multi-copy	1 scan/multi-copy	Multi scan/copy (AR-C150/C160) 1 scan/multi copy (AR-C250/C270)	Multi scan/copy (AR-C150/C160) 1 scan/multi copy (AR-C250/C270)	1 scan/multi copy (B&W) (AR-C250/C270) Multi scan/copy (color) (AR-C250/C270) Multi scan/copy (color/B&W) (AR-C150/C160)
Duplex copy	1 scan/ multi-copy	Multi scan/copy * (AR-C150/C160) 1 scan/multi copy (AR-C250/C270)	Multi scan/copy * (AR-C150/C160) 1 scan/multi copy (AR-C250/C270)	Multi scan/copy *	—

* No multi-copy mode, only single copy

a. First copy time

- Original stand mode (non SPF/ADF/RADF mode)

The values below are values under the highest speed. (Unit: sec.)

Paper supply mode	Paper size	Color				Monochrome		
		AR-C150	AR-C160	AR-C250	AR-C270	AR-C150	AR-C160/ C250	AR-C270
Manual paper feed	8.5 × 11, A4 (Normal paper)	9.8			9.6	19.5		13.7
	A4, 11 × 8.5 (OHP)	84.8				94.5		
	B5, A4, 11 × 8.5 (thick paper)	69.8	—			79.5		
	B5, A4, 11 × 8.5 (thick paper) (Mode 1) (106 – 130g/m^2)	—	69.8			—	79.5	
	B5, A4, 11 × 8.5 (thick paper) (Mode 2) (131 – 200g/m^2) (131 – 280g/m^2: AR-C160/C270)	—	119.8			—	129.5	
1st paper feed tray	A4	10.5	9.8	10.2	9.6	19.5		13.7
	8.5 × 11	10.5	9.8	10.2	9.6	19.5		13.7
2nd paper feed tray	A4	11.3	10.4	11.1	10.4	20.3		13.7
	8.5 × 11	11.3	10.4	11.1	10.4	20.3		13.7
3rd paper feed tray	A4	12.2	11.0	12.0	11.0	21.2		13.7
	8.5 × 11	12.2	11.0	12.0	11.0	21.2		13.7
4th paper feed tray	A4	13.1	11.6	12.9	11.6	22.1		13.7
	8.5 × 11	13.1	11.6	12.9	11.6	22.1		13.7
LCC	A4	10.2	9.8	10.2	9.6	19.5		13.7
	8.5 × 11	10.2	9.8	10.2	9.6	19.5		13.7

∗ 1st paper feed tray is installed for optional slot.

b. Multi-copy speed

(Conditions) Scanner speed: 15 cpm, using A4/letter standard paper, and no prescan

(Conditions) S → S color: One copy of A4 (L1) original (10 sheets), no optional settings other than RADF, and not including fast copy

(AR-C150)

Copy mode		Paper size	Color			Monochrome		
			1 scan: 1 copy			1 scan: Multiple copy		
			Copy magnification			Copy magnification		
			Reduction copy (25%)	Normal copy (100%)	Enlargement copy (400%)	Reduction copy (25%)	Normal copy (100%)	Enlargement copy (400%)
Original stand mode	S → S (1 – 3 paper feed tray)	A3	7	7	6	13	13	13
		A3 wide (12 × 18)	7	7	6	7	7	7
		B4	9	9	8	15	15	15
		A4	15	15	12	25 (24)	25 (24)	25 (24)
		A4R	11	11	10	19	19	19
		A5	15	15	12	25	25	25
		B5	15	15	12	25	25	25
		B5R	11	11	10	19	19	19
		11 × 17	7	7	6	13	13	13
		8.5 × 14	9	9	8	15	15	15
		8.5 × 11	15	15	12	25	25	25
		8.5 × 11R	11	11	10	19	19	19
		8.5 × 5.5	15	15	12	25 (24)	25 (24)	25 (24)
		8.5 × 13/F.S	9	9	8	15	15	15
		A4, 11 × 8.5 (OHP)	10	10	10	10	10	10
		B5, A4, 11 × 8.5 (thick paper)	10	10	10	10	10	10
		Other than B5, A4, 11 × 8.5 (thick paper)	5	5	5	5	5	5

The numbers in the parenthesis are the copy speeds when the 4th paper cassette is used.

(AR-C250)

Copy mode		Paper size	Color			Monochrome		
			1 scan: Multiple copy (1 scan: 1 copy)			1 scan: Multiple copy		
			Copy magnification			Copy magnification		
			Reduction copy (25%)	Normal copy (100%)	Enlargement copy (400%)	Reduction copy (25%)	Normal copy (100%)	Enlargement copy (400%)
Original stand mode	S → S (1 – 3 paper feed tray)	A3	13	13	13	13	13	13
		A3 wide (12 × 18)	7	7	7	7	7	7
		B4	15	15	15	15	15	15
		A4	25 (24)	25 (24)	25 (24)	25 (24)	25 (24)	25 (24)
		A4R	19	19	19	19	19	19
		A5	25 (*26)	25 (*26)	25 (*26)	25 (*26)	25 (*26)	25 (*26)
		B5	25 (*26)	25 (*26)	25 (*26)	25 (*26)	25 (*26)	25 (*26)
		B5R	19	19	19	19	19	19
		11 × 17	13	13	13	13	13	13
		8.5 × 14	15	15	15	15	15	15
		8.5 × 11	25 (24)	25 (24)	25 (24)	25 (24)	25 (24)	25 (24)
		8.5 × 11R	19	19	19	19	19	19
		8.5 × 5.5	25 (*26)	25 (*26)	25 (*26)	25 (*26)	25 (*26)	25 (*26)
		8.5 × 13/F.S	15	15	15	15	15	15
		A4, 11 × 8.5 (OHP)	10	10	10	10	10	10
		B5, A4, 11 × 8.5 (thick paper)	10	10	10	10	10	10
		Other than B5, A4, 11 × 8.5 (thick paper)	5	5	5	5	5	5

The numbers in the parenthesis are the copy speeds when the 4th paper cassette is used.

*: Only for Taiwan version

(AR-C160)

Copy mode		Paper size	Color			Monochrome		
			1 scan: 1 copy			1 scan: Multiple copy		
			Copy magnification			Copy magnification		
			Reduction copy (25%)	Normal copy (100%)	Enlargement copy (400%)	Reduction copy (25%)	Normal copy (100%)	Enlargement copy (400%)
Original stand mode	S → S (1 – 3 paper feed tray)	A3	7	7	6	15	15	15
		A3 wide (12 × 18)	7	7	6	7 *1	7 *1	7 *1
		B4	9	9	8	17	17	17
		A4	16	16	12	32 (31)	32 (31)	32 (31)
		A4R	11	11	10	22	22	22
		A5	16	16	12	32 (*33)	32 (*33)	32 (*33)
		B5	16	16	12	32 (*33)	32 (*33)	32 (*33)
		B5R	11	11	10	22	22	22
		11 × 17	7	7	6	15	15	15
		8.5 × 14	9	9	8	17	17	17
		8.5 × 11	16	16	12	32 (31)	32 (31)	32 (31)
		8.5 × 11R	11	11	10	22	22	22
		8.5 × 5.5	16	16	12	32 (*33)	32 (*33)	32 (*33)
		8.5 × 13/F.S	9	9	8	17	17	17
		A4, 11 × 8.5 (OHP)	10	10	10	10	10	10
		B5, A4, 11 × 8.5 (thick paper)	10	10	10	10	10	10
		Other than B5, A4, 11 × 8.5 (thick paper)	5	5	5	5	5	5

The numbers in the parenthesis are the copy speeds when the 4th paper cassette is used.

*: Only for Taiwan version

*1: 1 scan 1 copy

(AR-C270)

When the 1st or the 2nd paper cassette is used.

Copy mode		Paper size	Color/Single color			Monochrome		
			1 scan: Multiple copy			1 scan: Multiple copy		
			Copy magnification			Copy magnification		
			Reduction copy (25%)	Normal copy (100%)	Enlargement copy (400%)	Reduction copy (25%)	Normal copy (100%)	Enlargement copy (400%)
Original stand mode	S → S (1, 2 paper feed tray)	A4	27	27	27	32	32	32
		LT	27	27	27	32	32	32
		A3/WLT	13	13	13	15	15	15
		A3 wide (12" × 18")	7 *1	7 *1	7 *1	7	7	7
		B4/LGL/F.S.	15	15	15	17	17	17
		B5/A5/INV	27	27	27	32 (∗33)	32 (∗33)	32 (∗33)
		A4R/B5R/LT-R	19	19	19	22	22	22
		OHP (A4/LT)	10	10	10	10	10	10
		Thick paper 1 (B5/A4/LT/A5/INV)	20	20	20	20	20	20
		Thick paper 1 (B5R/A4R/B4/A3/F.S./LT-R/LG/WLT)	5	5	5	5	5	5
		Thick paper 2 (B5/A4/LT/A5/INV)	10	10	10	10	10	10
		Thick paper 2 (B5R/A4R/B4/A3/F.S./LT-R/LG/WLT)	5	5	5	5	5	5

∗: Only for Taiwan version

*1: 1 scan 1 copy

When the 3rd or the 4th paper cassette or LCC is used (except Japan).

Copy mode		Paper size	Color/Single color			Monochrome		
			1 scan: 1 copy			1 scan: Multiple copy		
			Copy magnification			Copy magnification		
			Reduction copy (25%)	Normal copy (100%)	Enlargement copy (400%)	Reduction copy (25%)	Normal copy (100%)	Enlargement copy (400%)
Original stand mode	S → S (3, 4 paper feed tray/ LCC)	A4/LT	25 (24∗1)	25 (24∗1)	25 (24∗1)	32 (31∗1)	32 (31∗1)	32 (31∗1)
		A3/WLT	13	13	13	15	15	15
		B4/LGL/F.S.	15	15	15	17	17	17
		B5/A5/INV	25	25	25	32 (33*)	32 (33*)	32 (33*)
		A4R/B5R/LT-R	19	19	19	22	22	22

*: Taiwan version

∗1: The copy speed when the 4th paper cassette is used.

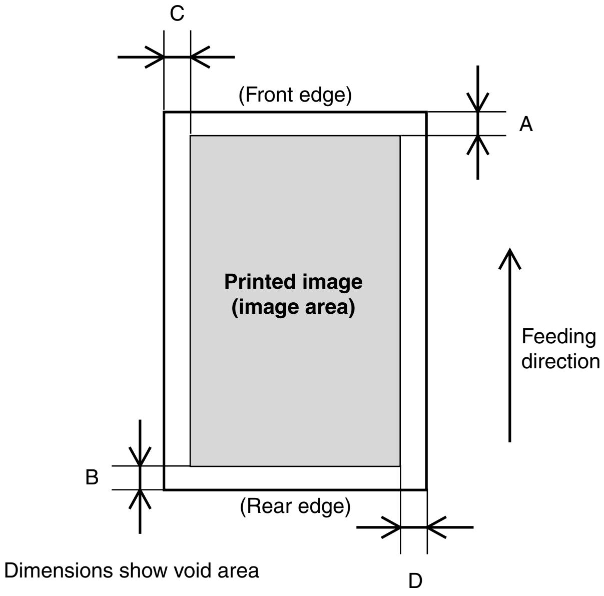
c. Maximum no. of copies

Multi max. quantity	999 sheets

- Maximum number of copies that can be set for each copy mode

	Black-and-white copy		Color copy		A3 wide copy
	Up to A4/LT	B4/RG to A3/WLT	Up to A4/LT	B4/RG to A3/WLT	
Single-side copy	999	999	999	999	999
Duplex copy	999	1 (AR-C150/C160) 999 (AR-C250/C270)	1 (AR-C150/C160) 999 (AR-C250/C270)	1	—

(6) Copy area


C
(Front edge)
A
Printed image
(image area)
Feeding direction
B
(Rear edge)
D
Dimensions show void area

Copy area	297 × 432mm

- Image loss

	Front edge (A)	Rear edge (B)	Total (C + D)	Left edge (C)	Right edge (D)
One side copy (excluding A3 (11 × 17))	Max. 5mm	Max. 5mm	Max. 6mm	Max. 3.0mm	Max. 3.0mm
One side copy for A3 (11 × 17)	Max. 5mm	Max. 7mm	Max. 6mm	Max. 3.0mm	Max. 3.0mm
Duplex copying	Max. 5mm	Max. 7mm	Max. 6mm	Max. 3.0mm	Max. 3.0mm
OHP copying	Max. 10mm	Max. 10mm	Max. 6mm	Max. 3.0mm	Max. 3.0mm

∗ 0mm image loss for A3 originals and A3 wide copying.

- Void area

	Front edge (A)	Rear edge (B)	Total (C + D)	Left edge (C)	Right edge (D)
One side copy (excluding A3 (11 × 17))	Max. 5mm	Max. 5mm	Max. 6mm	Max. 3.0mm	Max. 3.0mm
One side copy for A3 (11 × 17)	Max. 5mm	Max. 7mm	Max. 6mm	Max. 3.0mm	Max. 3.0mm
Duplex copying	Max. 5mm	Max. 7mm	Max. 6mm	Max. 3.0mm	Max. 3.0mm
OHP copying	Max. 10mm	Max. 10mm	Max. 6mm	Max. 3.0mm	Max. 3.0mm

(7) Languages supported

Japanese, English (USA/UK), German, French, Spanish, Italian, Dutch, Swedish, Norwegian, Finnish, Danish

(8) Internal auditor

Format	Key operation/card operation (optional)
No. of departments	400 (200 with card type)

3. Engine specifications

A. Operation (display/operation) section

Display	Large mono-color LCD display (AR-C150/C160/C270) Large color LCD display (AR-C250)
Operating procedure	Touch-panel input

B. Paper feeding, paper conveyance, and discharge section

(1) Paper feeding performance

a. Paper feed ability

Paper feed mode (section)	Feed method	Paper type	Location	Dimensions		Paper size			Paper weight	Capacity	Note
				Min.	Max.	Min.	Max.	Paper sizes			
Manual feed section (Multi paper feed)	—	AB Series	Japan	—	—	A6 (A6R) Postcard	A3 wide (12 × 18)	A3 wide, A3, B4, A4, A4R, B5, B5R, A5, Postcard, 11 × 17, 8.5 × 14, 8.5 × 11 (Paper guide display: 11, 8.5, A3 wide, A3, B4, A4, A4R, B5, B5R, A5, A5R, B6R, A6R, Postcard)	60 to 200g/m^2 (16 to 55lbs.) (AR-C150/C250) 60 to 280g/m^2 (16 to 75 lbs) (AR-C160/C270)	50 sheets (6mm) (max. 80g/m^2 paper) (AR-C150/C160/C250) 100 sheets (11mm) (max. 80g/m^2 paper) (AR-C270)	Special paper (OHP film), (recommended product), Postcard and thick paper
			Others					A3 wide, A3, B4, A4, A4R, B5, A5, A6R, 11 × 17, 8.5 × 14, 8.5 × 11, 7.25 × 10.5R (Paper guide display: 11, 8.5, A3 wide, A3, B4, B5, A4R, A5, B5R, A5R)			Special paper (OHP film) and thick paper
		Inch Series		—	—	8.5 × 5.5	12 × 18	12 × 18, 11 × 17, 8.5 × 14, 8.5 × 11, 8.5 × 11R, 8.5 × 5.5, 7.25 × 10.5R, A3, B4, A4, B5, A6R (Paper guide display: 12, 11, 8.5, 5.5, A3, B4, A4, B5)			
Manual feed section (Single paper feed)	—	AB Series	Japan	—	—	A6 (A6R) Postcard	A3 wide (12 × 18)	A3 wide, A3, B4, A4, A4R, B5, B5R, A5, Postcard, 11 × 17, 8.5 × 14, 8.5 × 11 (Paper guide display: 11, 8.5, A3 wide, A3, B4, A4, A4R, B5, B5R, A5, A5R, B6R, A6R, Postcard)	60 to 200g/m^2 (16 to 55lbs.) (AR-C150/C250) 60 to 280g/m^2 (16 to 75lbs.) (AR-C160/C270)	50 sheets (6mm) (max. 80g/m^2 paper) (AR-C150/C160/C250) 100 sheets (11mm) (max. 80g/m^2 paper) (AR-C270)	Special paper (OHP film), Postcard and thick paper
			Others					A3 wide, A3, B4, A4, A4R, B5, A5, A6R, 11 × 17, 8.5 × 14, 8.5 × 11, 7.25 × 10.5R (Paper guide display:)			Special paper (OHP film) and thick paper
		Inch Series		—	—	8.5 × 5.5	12 × 18	12 × 18, 11 × 17, 8.5 × 14, 8.5 × 11, 8.5 × 11R, 8.5 × 5.5, 7.25 × 10.5R, A3, B4, A4, B5, A6R (Paper guide display: 12, 11, 8.5, 5.5, A3, B4, A4, B5)			
1st to 4th cassette feeding unit	—	AB Series	Japan	—	—	A5	A3	A3, B4, A4, A4R, B5, B5R, A5, EXTRA	60 to 105g/m^2 (16 to 28lbs.)	500 sheets × 3 (4) (max. 80g/m^2 paper) (AR-C150/C160/C250) 500 sheets × 3 (4) (max. 64g/m^2 paper) (AR-C270)	
			Others					A3, B4, A4, A4R, B5, A5, 8.5 × 11		500 sheets × 3 (4) (max. 80g/m^2 paper) (AR-C150/C160/C250) 500 sheets × 3 (4) (max. 64g/m^2 paper) (AR-C270)	
		Inch Series		—	—	8.5 × 5.5	11 × 17	11 × 17, 8.5 × 14, 8.5 × 13, 8.5 × 11, 8.5 × 11R, 8.5 × 5.5, A4, EXTRA			

b. Document detection

Paper feed mode (section)	Paper type	Location of use	Detection size	Paper detection size and detection method	Size switching method	Note
Manual feed section	AB Series	Japan	A3 wide, A3, B4, A4, A4R, B5, B5R, A5, Postcard, 11 × 17, 8.5 × 14, 8.5 × 11	Electrical resistance changes according to position of paper width guide (volume sensor)	Aligns with paper width guide (sliding type)	
		Others	A3 wide, A3, B4, A4, A4R, B5, A5, A6R, 11 × 17, 8.5 × 14, 8.5 × 11, 7.25 × 10.5R			
	Inch Series		12 × 18, 11 × 17, 8.5 × 14, 8.5 × 11, 8.5 × 11R, 8.5 × 5.5, A3, B4, A4, B5, A6R, 7.25 × 10.5R			
1st to 4th cassette feeding unit	AB Series	Japan	A3, B4, A4, A4R, B5, B5R, A5, EXTRA	Detection method by switch signal combination (switches paper detection block position)	Aligns universal guide (sliding type)	Remaining amount detector
		Others	A3, B4, A4, A4R, B5, A5, 8.5 × 11, EXTRA			
	Inch Series		11 × 17, 8.5 × 14, 8.5 × 13, 8.5 × 11, 8.5 × 11R, 8.5 × 5.5, A4, EXTRA			

* When setting the paper size switch to EXTRA, it is necessary to set the paper size by key operation.

* For A and B sizes (excluding Japan), it is necessary to set the paper size switch to EXTRA for 13" and B5R.

(2) Finishing performance

Facing mode	Paper size	Paper weight	Capacity	Note
Face up	All paper sizes	All paper sizes that can be fed	250 sheets	

C. Scanner section (read)

(1) Type

Scanning method	By 3-color (RGB) CCD image sensor

(2) Original standard position, scanning size, and scanning area

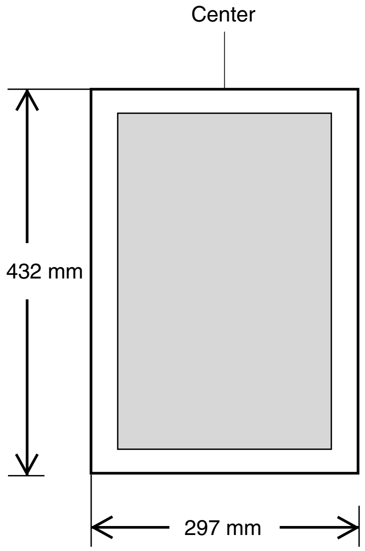
a. Original standard position

Left-center

b. Scanning size

Max. original size	AB Series	A3
	Inch Series	11 × 17

c. Scanning area



(3) Resolution

Main scanning direction	Sub scanning direction
Basic resolution	Basic resolution
600dpi	600dpi

(4) Gradation

	Input	Output
Monochrome	256 gradations (8bit)	256 gradations (8bit)
Color	256 gradations (8bit)	256 gradations (8bit)

(5) Scanning speed

Scan mode	Scan	Return	Scans per minute	Original size	
				A4 (11" × 8.5")	A3 (11" × 17")
Color	117 mm/sec	468 mm/sec	15 sheets/min 16 sheets/min (AR-C160/ C270)	15 sheets/min 16 sheets/min (AR-C160/ C270)	7 sheets/min
Monochrome	117 mm/sec	468 mm/sec	15 sheets/min 16 sheets/min (AR-C160/ C270)	15 sheets/min 16 sheets/min (AR-C160/ C270)	7 sheets/min

(6) Light source

Type	Halogen lamp
Drive voltage	70V
Power consumption	130W (AR-C150) 170W (AR-C250/C160/C270)

(7) Scanning sensor

Type	3-line color CCD

(8) Color separation method

Color separation by 3-color (RGB) CCD image sensor

D. Scanner section (write)

(1) Type

Type	Laser scanning

(2) Laser unit specifications

Speed of rotation	27,600rpm (AR-C150/C250) Color mode 27,600rpm (AR-C160/C270) Monochrome mode 33,070rpm (AR-C160/C270)
Mirror surfaces	6 surfaces
Laser power	5mW
Laser beam size	65 × 85µm (AR-C150/C250) 60 × 70µm (AR-C160/C270)
Laser wavelength	785µm
Scan width (sub scan direction)	AB Series: 420mm Inch Series: 432mm

(3) Resolution

Main scanning direction	Sub scanning direction
600dpi	600dpi

(4) Gradation

Monochrome	256 gradations (8bit)
Color	256 gradations (8bit)

E. Image processing section

(1) Imaging speed

Monochrome	140 mm/sec (color)
Color	117 mm/sec (color)

(2) Photosensitive drum

		Black (AR-C160/C270)
Type	OPC ϕ40mm (3 pieces) (C, M, Y) (AR-C160/C270) OPC ϕ40mm (4 pieces) (C, M, Y, K) (AR-C150/C250)	OPC ϕ40mm (1 pieces) (K)
Life	40,000 sheets	80,000 sheets

(3) Toner

	Black	Color (C, M, Y)
Type	—	
Capacity	650g	300g
Form	Cartridge	

(4) Developer

	Black	Color (C, M, Y)
Type	Ferrite type	
Capacity	630g	630g
Life	40,000 sheets (AR-C150/C250) 80,000 sheets (AR-C160/C270)	40,000 sheets each

(5) Charging system

Charging system	DC negative corotron (saw tooth electrode)
Voltage	–320V to –830V

(6) Exposure

Method	Exposure from laser diode

(7) Developing system

Developing system	Dry, 2-component magnetic brush development
Voltage	–120V to –600V

(8) Transfer

Method	DC positive static electricity transfer (transfer belt method)
Voltage	1.75 to 5KV

(9) Paper separation system

Method	Curvature release + Separation pawl (Japan only)

(10) Discharging

Method	Discharging lamp method

(11) Cleaning

Method	Blade method

(12) Toner compartment capacity

	Black	Color (C, M, Y)
Capacity	650g	300g

(13) Waste toner collector capacity

Capacity	—
Printed sheets	40K (Conditions of each color 5% coverage, total 20% coverage)

(14) Correction functions

Correction functions	Toner density correction (toner density control level correction)
	Drum sensitivity correction (laser power control level correction)
	Transfer-ability correction (transfer voltage control level correction)
	Developing-ability correction (developing bias voltage control level correction)
	Halftone correction (laser power duty control level correction)

F. Fuser section

(1) Type

Fusing system	Heat roller system (oil usage)

(2) Lamp

Main unit voltage ratings	Lamp	Type	Lamp rating	
			Voltage	Power consumption
100V	Main heater lamp	Halogen lamp	100V	1000W
	Sub heater lamp	Halogen lamp	100V	700W
110V	Main heater lamp	Halogen lamp	—	—
	Sub heater lamp	Halogen lamp	—	—
120V	Main heater lamp	Halogen lamp	120V	1200W
	Sub heater lamp	Halogen lamp	120V	700W
127V	Main heater lamp	Halogen lamp	—	—
	Sub heater lamp	Halogen lamp	—	—
220 to 230V	Main heater lamp	Halogen lamp	230V	1300W
	Sub heater lamp	Halogen lamp	230V	700W
240V	Main heater lamp	Halogen lamp	230V	1300W
	Sub heater lamp	Halogen lamp	230V	700W

(3) Fuser temperature

(AR-C100/C150)

Mode			Control temperature									NOTE
			U.S.A	Canada	Inch	Japan	AB_B	Europe	U.K	Aus.	AB_A	
Ready condition	Ready condition control temperature (HL1)	Upper heat roller	187	187	187	177	177	187	187	187	187	
	Ready condition control temperature (HL2)	Lower heat roller	142	142	142	132	132	142	142	142	142	
Copy/Print mode	Normal mode control temperature (HL1)	Upper heat roller	180	180	180	170	170	180	180	180	180	
	Normal mode control temperature (HL2)	Lower heat roller	135	135	135	125	125	135	135	135	135	
	Thick paper mode control temperature (HL1)	Upper heat roller	200	200	200	200	200	200	200	200	200	AR-C150 only
	Thick paper mode control temperature (HL2)	Lower heat roller	155	155	155	155	155	155	155	155	155	AR-C150 only
	OHP mode control temperature (HL1)	Upper heat roller	180	180	180	180	180	180	180	180	180	AR-C150 only
	OHP mode control temperature (HL2)	Lower heat roller	175	175	175	175	175	175	175	175	175	AR-C150 only
Pre-heat mode	Energy saving mode control temperature (HL1)	Upper heat roller	140	140	140	140 (137)	140	140	140	140	140	( ) AR-C100
	Control temperature when resetting from pre-heat to B/W (HL1)	Upper heat roller	155	155	155	155 (152)	155	155	155	155	155	( ) AR-C100
Sleep mode	HL1	Upper heat roller	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	
	HL2	Lower heat roller	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	

(AR-C250/C160/C270)

Mode			Control temperature									NOTE
			U.S.A	Canada	Inch	Japan	AB_B	Europe	U.K	Aus.	AB_A	
Ready condition	Ready condition control temperature (HL1)	Upper heat roller	177	177	177	177	177	177	177	177	177	
	Ready condition control temperature (HL2)	Lower heat roller	132	132	132	140 (132)	140 (132)	132	132	132	132	( ) AR-C160/ C270
Copy/Print mode	Normal mode control temperature (HL1)	Upper heat roller	170	170	170	170	170	170	170	170	170	
	Normal mode control temperature (HL2)	Lower heat roller	125	125	125	140 (125)	140 (125)	125	125	125	125	( ) AR-C160/ C270
	Thick paper mode 1 control temperature (HL1)	Upper heat roller	185	185	185	185	185	185	185	185	185	
	Thick paper mode 1 control temperature (HL2)	Lower heat roller	155	155	155	155	155	155	155	155	155	
	Thick paper mode 2 control temperature (HL1)	Upper heat roller	200	200	200	200	200	200	200	200	200	
	Thick paper mode 2 control temperature (HL2)	Lower heat roller	155	155	155	155	155	155	155	155	155	
	OHP mode control temperature (HL1)	Upper heat roller	180	180	180	180	180	180	180	180	180	
	OHP mode control temperature (HL2)	Lower heat roller	175	175	175	175	175	175	175	175	175	
Pre-heat mode	Energy saving mode control temperature (HL1)	Upper heat roller	136 (146)	136 (146)	136 (146)	136 (146)	136 (146)	136 (146)	136 (146)	136 (146)	136 (146)	( ) AR-C160/ C270
	Control temperature when resetting from pre-heat to B/W (HL1)	Upper heat roller	148 (158)	148 (158)	148 (158)	148 (158)	148 (158)	148 (158)	148 (158)	148 (158)	148 (158)	( ) AR-C160/ C270
Sleep mode	HL1	Upper heat roller	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	
	HL2	Lower heat roller	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	

(4) Heat roller

Type	Silicone rubber roller ϕ40mm (AR-C150) ϕ50mm (AR-C250/C160/C270)
Life	40K

(5) Pressure roller

Type	Silicone rubber roller ϕ40mm (AR-C150) ϕ50mm (AR-C250/C160/C270)
Life	40K

(6) Release method

Forced release by releasing tabs

G. Drive section

Drive section	Motor name	Motor type
Toner hopper (C, M, Y, K)	Toner motor (Y, M, C, K)	Synchronous motor
Photosensitive drum (C, M, Y, K)	Drum motor (Y, M, C, K)	Stepping motor
Image scanner	Scanner motor	Stepping motor
Developing (C, M, Y, K)	Developing motor (Y, M, C, K)	DC brush-less motor
Paper feed and conveyance	Paper feed motor	DC brush-less motor
Transfer belt	Transfer belt motor	Stepping motor
Fusing	Fusing motor	DC brush-less motor

H. Engine controller

Processor	M68334

I. Image processing controller

Processor	MCF5202

J. Memory

Type	Capacity	Memory contents	Location
DRAM	128MB (AR-C150/C160) 256MB (AR-C250/C270)	Image data	ICU MAIN PWB
Flash ROM	32Mbit (16Mbit x 2)	Program data	ICU MAIN PWB
	16Mbit (AR-C150/C250/C160/C270) 8Mbit (AR-C100)	Program data	PCU MAIN PWB
	16Mbit (AR-C150/C160/C270) 16Mbit × 2 (AR-C250)	Program data	Operation control PWB
EEPROM	64Kbit (AR-C100) 256Kbit (AR-C150/C160/C250/C270)	Setting, adjustment, counter data, etc.	PCU MAIN PWB
	64Kbit	Setting, adjustment, counter data, etc.	ICU MAIN PWB

K. Power source

(1) DC power supply

(AR-C150/C250)

Type		Output		
		Voltage	Capacity (current)	Note
DC power supply	Main	24V	15A	
		5.1V	7.5A	
		3.4V	5.5A	
	Sub	26V	0.5A	
		5V2	1.1A	
		5Vs	0.1A	

(AR-C160/C270)

Type	Output		
	Voltage	Capacity (current)	Note
DC power supply	24V	10A	
	5.1V	12A	
	3.4V	9A	

(2) Dehumidifier functionality

Section	Paper conveyor section (Japan only)	Image scanner section (optional outside of Japan)
Method	Surface heater * With ON/OFF switch	Surface heater

(3) Operating voltage/power consumption

(AR-C150/C250)

Power supply voltage/ frequency		Power consumption							
		Main unit				With full options			
		Preheat condition	Ready condition	Sleep mode condition	Max.	Preheat condition	Ready condition	Sleep mode condition	Max.
100V	50/60Hz	Max. 101W	—	Max. 10W	1500W	—	—	—	1500W
110V	50/60Hz	Max. 101W	—	Max. 10W	1500W	—	—	—	1500W
120V	50/60Hz	Max. 101W	—	Max. 10W	1500W	—	—	—	1500W
127V	50/60Hz	Max. 101W	—	Max. 10W	1500W	—	—	—	1500W
220 to 230V	50/60Hz	Max. 101W	—	Max. 10W	1800W	—	1175W	—	1800W
240V	50/60Hz	Max. 101W	—	Max. 10W	1800W	—	1325W	—	1800W

(AR-C160/C270)

Power supply voltage/ frequency		Power consumption							
		Main unit				With full options			
		Preheat condition	Ready condition	Sleep mode condition	Max.	Preheat condition	Ready condition	Sleep mode condition	Max.
100V	50/60Hz	Max. 128.2wh (AR-C160) Max. 135.9wh (AR-C270)	—	Max. 15W	1500W	—	—	—	1500W
110V	50/60Hz	Max. 128.2wh	—	Max. 15W	1500W	—	—	—	1500W
120V	50/60Hz	Max. 128.2wh	—	Max. 15W	1500W	—	—	—	1500W
127V	50/60Hz	Max. 128.2wh	—	Max. 15W	1500W	—	—	—	1500W
220 to 230V	50/60Hz	Max. 128.2wh	—	Max. 15W	1800W	—	1175W	—	1800W
240V	50/60Hz	Max. 128.2wh	—	Max. 15W	1800W	—	1325W	—	1800W

4. Safety and environmental protection standards

A. Safety standards

Item	Standard	Country
Safety standards	S mark (Electrical regulations)	Japan
	UL	U.S.A
	SEMKO	Sweden
	GS Mark	Germany
Environmental standards	FCC	U.S.A
	VCCI	Japan
	CE	Europe
	C-tick	Australia

B. Environmental standards

(1) Power consumption and environmental standards

Item	Standard	Country
Power consumption	Energy Star	Japan, U.S.A, Europe
	ECP, Nordic	Canada
Environmental standards	Swan, Nordic	Sweden

(2) Ozone level

Max. 0.02mg/m^3

(3) Noise level

Model	
AR-C150 AR-C250	Max. 63 dB
AR-C160 AR-C270	Max. 68 dB

5. Ambient conditions

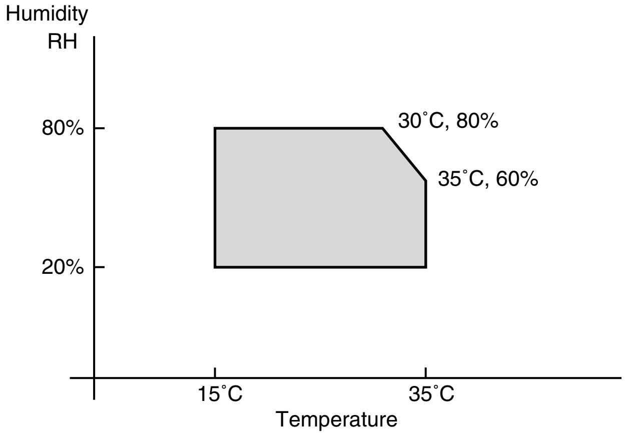
A. Space required

(1) Area required

	AR-C150/C160/C250/C270	AR-C100
Main unit	1412 × 695mm (55.6" × 27.4")	1220 × 695mm
With full options	(With AR-SS2) 1454 × 761mm (57.2" × 30.0") (With AR-FN4) 1668 × 761mm (65.7" × 30.0")	—

B. Operating ambient conditions

(1) Temperature/Humidity

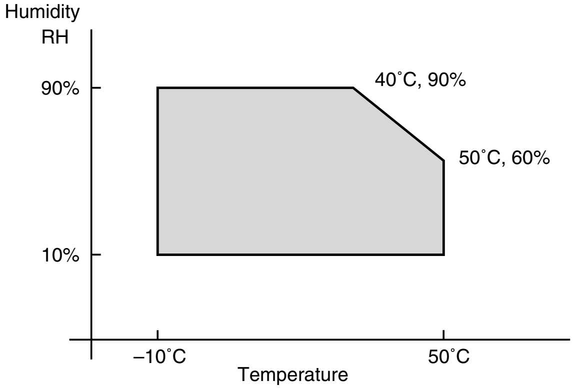


(2) Power supply voltage and frequency

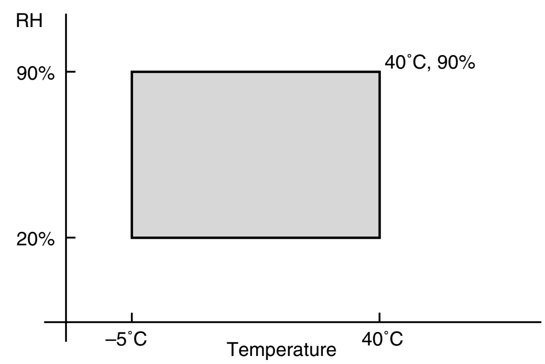
Power supply voltage	Rated voltage ± 10%
Power supply frequency	Rated frequency ± 2%

C. Ambient storage conditions

Main unit

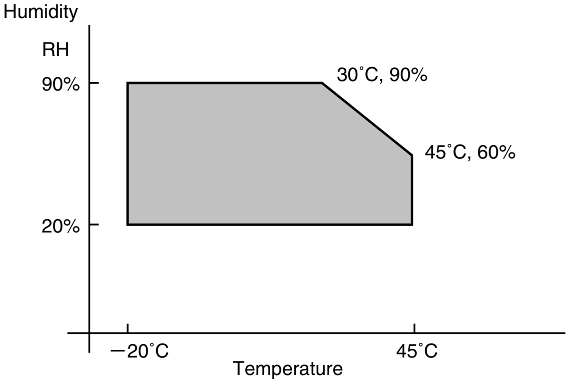


Consumable items (unopened)

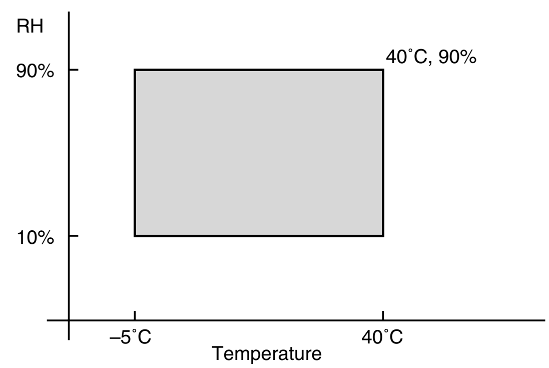


D. Ambient conditions for transporting

Main unit



Consumable items



E. Standard temperature and humidity

Temperature	20 to 25°C
Humidity	65 ± 5%

[3] CONSUMABLE PARTS

1. Consumable parts list

AR-C150 Supply List (U.S.A./CANADA)

	NAME	CONTENT(S)	LIFE Note 1)	Model	DIMENSIONS (W × D × H): mm /WHIGHT: kg	INCOMPATIBILITY	REMARK
1	Color Toner (cyan)	Toner Cartridge (cyan) (300g), Instruction Sheet × 10	4K Note 1) × 10	AR-C15MT6	329 × 590 × 218/5.62	A	(AR-C15NT6) × 10 = AR-C15MT6
2	Color Toner (magenta)	Toner Cartridge (magenta) (300g), Instruction Sheet × 10	4K Note 1) × 10	AR-C15MT7	329 × 590 × 218/5.62	A	(AR-C15NT7) × 10 = AR-C15MT7
3	Color Toner (yellow)	Toner Cartridge (yellow) (300g), Instruction Sheet × 10	4K Note 1) × 10	AR-C15MT8	329 × 590 × 218/5.62	A	(AR-C15NT8) × 10 = AR-C15MT8
4	Toner (black)	Toner Cartridge (black) (650g), Instruction Sheet × 10	8K Note 1) × 10	AR-C15MT1	429 × 610 × 246/10.97	A	(AR-C15NT1) × 10 = AR-C15MT1 The AR-C25MT1 or AR-C16MT1 can be used.
5	Color Developer kit	[Developer (cyan × 1, magenta × 1, yellow × 1) (630g each) × 3	40K each × 3	AR-C15MD9	294 × 391 × 170/7.71		(AR-C15ND9) × 3 = AR-C15MD9
6	Black Developer kit	[Developer (black) (630g) × 1 × 10	40K × 10	AR-C15MD1	204 × 391 × 290/9.10		(AR-C15ND1) × 10 = AR-C15MD1
7	Drum Unit	Drum Unit × 1 (Drum/Unit Parts included) × 1 Color Seal (C, M, Y, Bk each × 2)	40K	AR-C15DU	402 × 568 × 198/6.73		Not applicable for AR-C250, AR-C160/C270
8	Drum Kit	Drum × 1 Cleaning Blade × 1 Toner Receiving Seal × 1 Charger Unit × 1 Color Seal (C, M, Y, Bk each × 1)	40K	AR-C15DK	418 × 146 × 519/4.60		Not applicable for AR-C250, AR-C160/C270

Note 1) A4 document with 10% coverage

Note 2) Inner carton printed in 2 languages including English and French

AR-C150/250 Supply List (U.S.A/Canada)

	NAME	CONTENT (S)	LIFE	MODEL	INCOMPATIBILITY	REMARK
1	Color Toner (cyan)	Toner Cartridge (cyan) (300g), Instruction Sheet × 10	4.85K × 10 Note 1)	AR-C25MT6	A	(AR-C25NT6) × 10 = AR-C25MT6
2	Color Toner (magenta)	Toner Cartridge (magenta) (300g), Instruction Sheet × 10	4.85K × 10 Note 1)	AR-C25MT7	A	(AR-C25NT7) × 10 = AR-C25MT7
3	Color Toner (yellow)	Toner Cartridge (yellow) (300g), Instruction Sheet × 10	4.85K × 10 Note 1)	AR-C25MT8	A	(AR-C25NT8) × 10 = AR-C25MT8
4	Toner (black)	Toner Cartridge (black) (600g), Instruction Sheet × 10	8.64K × 10 Note 1) 21.7K × 10 Note 3)	AR-C25MT1	A	(AR-C25NT1) × 10 = AR-C25MT1 The AR-C16MT1 can be used.
5	Color Developer kit	[Developer (cyan × 1, magenta × 1, yellow × 1) (630g each)] × 3	40K each color × 3	AR-C15MD9		(AR-C15ND9) × 3 = AR-C15MD9
6	Black Developer kit	[Developer (black) (630g) × 1] × 10	40K × 10	AR-C15MD1		(AR-C15ND1) × 10 = AR-C15MD1
7	Drum Unit	Drum Unit × 1 (Drum/Unit Parts included) × 1 Color Seal (C, M, Y, Bk each × 2)	40K	AR-C25DU		Not applicable for black in AR-C160/C270.
8	Drum Kit	Drum × 1 Cleaning Blade × 1 Toner Receiving Seal × 1 Charger Unit × 1 Color Seal (C, M, Y, Bk each × 1)	40K	AR-C25DK		Not applicable for black in AR-C160/C270.

Note 1) A4 document with 10% coverage

Note 2) Inner carton printed in 2 languages including English and French

Note 3) A4 document with 6% coverage

AR-C150/C250 supply system (USA/Canada)

No.	Name	Content	Life	Model	Remark
1	Developer unit kit	Developer unit × 4	—	AR-DW1	
2	Waste toner container kit	Drum waste toner container (AS) × 1	40K	AR-C15HB	5% coverage of each of C/M/Y/K, total 20% coverage
		Transfer waste toner tank unit × 1			
3	Fusing oil	Fusing oil (800g) × 10	40K × 10	AR-C15LL	AR-C15LL = AR-C15SL × 10
4	Upper heat roller kit	Upper heat roller unit × 1	40K	AR-C15UH	For AR-C150
		Upper cleaning roller × 1		AR-C25UH	For AR-C250
5	Lower heat roller kit	Lower heat roller unit × 1	40K	AR-C15LH	For AR-C150
		Fusing separation pawl lower × 5		AR-C25LH	For AR-C250
6	Fusing oil applying kit	Oil applying unit × 1	40K	AR-C15KH	For AR-C150
		Oil filter unit × 1		AR-C25KH	For AR-C250
		Applying unit mini oil bottle × 1			
7	Filter kit	Process ozone filter × 2	80K	AR-C15FL	
		Toner duct ozone filter × 1			
		Toner filter × 1			
8	Transfer belt kit	Transfer belt × 1	160K	AR-C15TT	
		Belt separation pawl × 2			
9	Transfer roller kit	Transfer blade × 1	80K	AR-C15TX	
		Transfer roller × 4			
10	Staple cartridge	Staple cartridge (SF-SC11) × 3	5,000 × 3	SF-SC11	For AR-SS2. Common with FN1.
11	Fusing unit	Fusing unit × 1 (Except for motor, PWB, upper/lower lamps)		AR-C15FU	(For servicing) For AR-C150
				AR-C25FU	For AR-C250
12	Transfer unit	Transfer unit × 1 (Except for motor)		AR-C15TU	(For servicing)
13	DV seal kit	DV seal unit (assemble) × 3	80K	AR-C15DS	
14	Staple cartridge	Staple cartridge	3,000 × 3	AR-SC1	For AR-FN4

AR-C160/C270 Supply List (U.S.A/Canada)

	NAME	CONTENT (S)	LIFE	MODEL	INCOMPATIBILITY	REMARK
1	Color Toner (cyan)	Toner Cartridge (cyan) (300g), Instruction Sheet × 10	4.85K × 10 Note 1)	AR-C25MT6	A	(AR-C25NT6) × 10 = AR-C25MT6
2	Color Toner (magenta)	Toner Cartridge (magenta) (300g), Instruction Sheet × 10	4.85K × 10 Note 1)	AR-C25MT7	A	(AR-C25NT7) × 10 = AR-C25MT7
3	Color Toner (yellow)	Toner Cartridge (yellow) (300g), Instruction Sheet × 10	4.85K × 10 Note 1)	AR-C25MT8	A	(AR-C25NT8) × 10 = AR-C25MT8
4	Toner (black)	Toner Cartridge (black) (650g), Instruction Sheet × 10	21.7K × 10 Note 3)	AR-C16MT1	A	(AR-C16NT1) × 10 = AR-C16MT1 The AR-C25MT1 or AR-C16MT1 can be used.
5	Color Developer kit	[Developer (cyan × 1, magenta × 1, yellow × 1) (630g each)] × 3	40K each color × 3	AR-C15MD9		(AR-C15ND9) × 3 = AR-C15MD9
6	Black Developer kit	[Developer (black) (630g) × 1] × 10	80K × 10	AR-C16MD1		(AR-C16ND1) × 10 = AR-C16MD1 Not applicable for AR-C150 and AR-C250.
7	Drum Unit	Drum Unit × 1	40K	AR-C25DU		Use for C, M, Y
		(Drum/Unit Parts included) × 1				
		Color Seal (C, M, Y, each × 2)				
8	Drum Kit	Drum (Color) × 1	40K	AR-C25DK		Use for C, M, Y
		Cleaning Blade × 1				
		Toner Receiving Seal × 1				
		Charger Unit × 1				
		Color Seal (C, M, Y, each × 1)				
9	Drum	Drum (Black)	80K	AR-C16DR		Use for Black Not applicable for AR-C150 and AR-C250.
10	Main charger kit	Main charger unit × 1	40K	AR-16MK		Use for Black Not applicable for AR-C150 and AR-C250.
		Cleaning blade × 1				
		Toner receiving seal × 1				
		RS roller cleaner × 1				

Note 1) A4 document with 10% coverage

Note 2) Inner carton printed in 2 languages including English and French

Note 3) A4 document with 6% coverage

AR-C160/C270 supply system (USA/Canada)

No.	Name	Content	Life	Model	Remark
1	Developer unit kit	Developer unit × 4	—	AR-DW1	
2	Waste toner container kit	Drum waste toner container (AS) × 1 Transfer waste toner tank unit × 1	40K	AR-C15HB	5% coverage of each of C/M/Y/K, total 20% coverage
3	Fusing oil	Fusing oil (800g) × 10	40K × 10	AR-C15LL	AR-C15LL = AR-C15SL × 10
4	Upper heat roller kit	Upper heat roller unit × 1 Upper cleaning roller × 1	40K	AR-C16UH	
5	Lower heat roller kit	Lower heat roller unit × 1 Fusing separation pawl lower × 5	40K	AR-C16LH	
6	Fusing oil applying kit	Oil applying unit × 1 Oil filter unit × 1 Applying unit mini oil bottle × 1	40K	AR-C25KH	
7	Filter kit	Process ozone filter × 2 Toner duct ozone filter × 1 Toner filter × 1	80K	AR-C15FL	
8	Transfer belt kit Transfer roller kit	Transfer belt × 1 Transfer roller × 4	160K	AR-C16TT	
9	Staple cartridge	Staple cartridge (SF-SC11) × 3	5,000 × 3	SF-SC11	For AR-SS2. Common with FN1.
10	Fusing unit	Fusing unit (Except for motor, PWB, upper/lower lamps) × 1		AR-C16FU	(For servicing)
11	Transfer unit	Transfer unit (Except for motor) × 1		AR-C16TU	(For servicing)
12	DV seal kit	DV seal unit (assemble) × 3	80K	AR-C15DS	
13	Staple cartridge	Staple cartridge	3,000 × 3	AR-SC1	For AR-FN4
14	Transfer belt cleaning blade kit	Transfer belt cleaning blade × 1	80K	AR-C16TG	AR-C16TG = AR-C160G × 10 (for USA)
	Transfer belt cleaning blade kit	Transfer belt cleaning blade × 1	80K	AR-C16TK	AR-C16TK = AR-C160K × 10 (for Canada)

AR-C150 Supply List (Europe/Australia/New Zealand)

	NAME	CONTENT(S)	LIFE Note 1)	Model	DIMENSIONS (W × D × H): mm /WHIGHT: kg	INCOMPATIBILITY	REMARK
1	Color Toner (cyan)	Toner Cartridge (cyan) (267g), Instruction Sheet × 10	4K Note 1) × 10	AR-C15LT6	329 × 590 × 218/5.62	B	(AR-C15T6) × 10 = AR-C15LT6
2	Color Toner (magenta)	Toner Cartridge (magenta) (267g), Instruction Sheet × 10	4K Note 1) × 10	AR-C15LT7	329 × 590 × 218/5.62	B	(AR-C15T7) × 10 = AR-C15LT7
3	Color Toner (yellow)	Toner Cartridge (yellow) (267g), Instruction Sheet × 10	4K Note 1) × 10	AR-C15LT8	329 × 590 × 218/5.62	B	(AR-C15T8) × 10 = AR-C15LT8
4	Toner (black)	Toner Cartridge (black) (600g), Instruction Sheet × 10	8K Note 1) × 10	AR-C15LT1	429 × 610 × 246/10.97	B	(AR-C15T1) × 10 = AR-C15LT1 The AR-C16LT1 can be used.
5	Color Developer kit	[Developer (cyan × 1, magenta × 1, yellow × 1) (630g each) × 3	40K each × 3	AR-C15LD9	294 × 391 × 170/7.71		(AR-C15DV9) × 3 = AR-C15LD9
6	Black Developer kit	[Developer (black) (630g) × 1 × 10	40K	AR-C15LD1	204 × 391 × 290/9.10		(AR-C15DV1) × 10 = AR-C15LD1
7	Drum Unit	Drum Unit × 1 (Drum/Unit Parts included) × 1 Color Seal (C, M, Y, Bk each × 2)	40K	AR-C15DU	402 × 568 × 198/6.73		Not applicable for AR-C250, AR-C160/C270
8	Drum Kit	Drum × 1 Cleaning Blade × 1 Toner Receiving Seal × 1 Charger Unit × 1 Color Seal (C, M, Y, Bk each × 1)	40K	AR-C15DK	418 × 146 × 519/4.60		Not applicable for AR-C250, AR-C160/C270

Note 1) A4 document with 10% coverage

Note 2) Inner carton printed in 4 languages

AR-C150/250 Supply List (Europe/Australia/New Zealand)

	NAME	CONTENT (S)	LIFE	MODEL	INCOMPATIBILITY	REMARK
1	Color Toner (cyan)	Toner Cartridge (cyan) (300g), × 10 Instruction Sheet	4.85K × 10 Note 1)	AR-C25LT6	B	(AR-C25T6) × 10 = AR-C25LT6
2	Color Toner (magenta)	Toner Cartridge (magenta) (300g), × 10 Instruction Sheet	4.85K × 10 Note 1)	AR-C25LT7	B	(AR-C25T7) × 10 = AR-C25LT7
3	Color Toner (yellow)	Toner Cartridge (yellow) (300g), × 10 Instruction Sheet	4.85K × 10 Note 1)	AR-C25LT8	B	(AR-C25T8) × 10 = AR-C25LT8
4	Toner (black)	Toner Cartridge (black) (600g), × 10 Instruction Sheet	8.64K × 10 Note 1) 21.7 × 10 Note 3)	AR-C25LT1	B	(AR-C25T1) × 10 = AR-C25LT1 The AR-C16MT1 can be used.
5	Color Developer kit	[Developer (cyan × 1, magenta × 1, yellow × 1) (630g each)] × 3	40K each color × 3	AR-C15LD9		(AR-C15DV9) × 3 = AR-C15LD9
6	Black Developer kit	[Developer (black) (630g) × 1] × 10	40K × 10	AR-C15LD1		(AR-C15DV1) × 10 = AR-C15LD1
7	Drum Unit	Drum Unit × 1 (Drum/Unit Parts included) × 1 Color Seal (C, M, Y, Bk each × 2)	40K	AR-C25DU		Not applicable for black in AR-C160/C270.
8	Drum Kit	Drum × 1 Cleaning Blade × 1 Toner Receiving Seal × 1 Charger Unit × 1 Color Seal (C, M, Y, Bk each × 1)	40K	AR-C25DK		Not applicable for black in AR-C160/C270.

Note 1) A4 document with 10% coverage

Note 2) Inner carton printed in 4 languages

Note 3) A4 document with 6% coverage

AR-C150/C250 supply system (Europe/Australia/New Zealand)

No.	Name	Content	Life	Model	Remark
1	Developer unit kit	Developer unit × 4	—	AR-DW1	
2	Waste toner container kit	Drum waste toner container (AS) × 1 Transfer waste toner tank unit × 1	40K	AR-C15HB	5% coverage of each of C/M/Y/K, total 20% coverage
3	Fusing oil	Fusing oil (80g) × 10	40K × 10	AR-C15LL	AR-C15LL = AR-C15SL × 10
4	Upper heat roller kit	Upper heat roller unit × 1	40K	AR-C15UH	For AR-C150
		Upper cleaning roller × 1		AR-C25UH	For AR-C250
5	Lower heat roller kit	Lower heat roller unit × 1	40K	AR-C15LH	For AR-C150
		Fusing separation pawl lower × 5		AR-C25LH	For AR-C250
6	Fusing oil applying kit	Oil applying unit × 1	40K	AR-C15KH	For AR-C150
		Oil filter unit × 1 Applying unit mini oil bottle × 1		AR-C25KH	For AR-C250
7	Filter kit	Process ozone filter × 2 Toner duct ozone filter × 1 Toner filter × 1	80K	AR-C15FL	
8	Transfer belt kit	Transfer belt × 1 Belt separation pawl × 2	160K	AR-C15TT	
9	Transfer roller kit	Transfer blade × 1 Transfer roller × 4	80K	AR-C15TX	
10	Staple cartridge	Staple cartridge (SF-SC11) × 3	5,000 × 3	SF-SC11	For AR-SS2. Common with FN1.
11	Fusing unit	Fusing unit × 1 (Except for motor, PWB, upper/lower lamps)		AR-C15FU	(For servicing) For AR-C150
				AR-C25FU	For AR-C250
12	Transfer unit	Transfer unit × 1 (Except for motor)		AR-C15TU	(For servicing)
13	DV seal kit	DV seal unit (assemble) × 3	80K	AR-C15DS	
14	Staple cartridge	Staple cartridge	3,000 × 3	AR-SC1	For AR-FN4

AR-C160/C270 Supply List (Europe/Australia/New Zealand)

	NAME	CONTENT (S)	LIFE	MODEL	INCOMPATIBILITY	REMARK
1	Color Toner (cyan)	Toner Cartridge (cyan) (300g), Instruction Sheet × 10	4.85K × 10 Note 1)	AR-C25LT6	B	(AR-C25T6) × 10 = AR-C25LT6
2	Color Toner (magenta)	Toner Cartridge (magenta) (300g), Instruction Sheet × 10	4.85K × 10 Note 1)	AR-C25LT7	B	(AR-C25T7) × 10 = AR-C25LT7
3	Color Toner (yellow)	Toner Cartridge (yellow) (300g), Instruction Sheet × 10	4.85K × 10 Note 1)	AR-C25LT8	B	(AR-C25T8) × 10 = AR-C25LT8
4	Toner (black)	Toner Cartridge (black) (650g), Instruction Sheet × 10	21.7 × 10 Note 3)	AR-C16LT1	B	(AR-C16T1) × 10 = AR-C16LT1 The AR-C25LT1 can be used.
5	Color Developer kit	[Developer (cyan × 1, magenta × 1, yellow × 1) (630g each)] × 3	40K each color × 3	AR-C15LD9		(AR-C15DV9) × 3 = AR-C15LD9
6	Black Developer kit	[Developer (black) (630g) × 1] × 10	80K × 10	AR-C16LD1		(AR-C16DV1) × 10 = AR-C16LD1 Not applicable for AR-C150 and AR-C250.
7	Drum Unit	Drum Unit × 1 (Drum/Unit Parts included) × 1 Color Seal (C, M, Y, Bk each × 2)	40K	AR-C25DU		Use for C, M, Y
8	Drum Kit	Drum × 1 Cleaning Blade × 1 Toner Receiving Seal × 1 Charger Unit × 1 Color Seal (C, M, Y, Bk each × 1)	40K	AR-C25DK		Use for C, M, Y
9	Drum	Drum (Black)	80K	AR-C16DR		Use for Black Not applicable for AR-C150 and AR-C250.
10	Main charger kit	Main charger unit × 1 Cleaning blade × 1 Toner receiving seal × 1 RS roller cleaner × 1	40K	AR-16MK		Use for Black Not applicable for AR-C150 and AR-C250.
11	Starter kit	Toner cartridge (cyan × 1, magenta × 1, yellow × 1 each color 300g, black × 1 650g) Developer (cyan × 1, magenta × 1, yellow × 1, black × 1 650g each) Fuser oil × 1	—	AR-C16SK1		Not applicable for AR-C150 and AR-C250.

Note 1) A4 document with 10% coverage

Note 2) Inner carton printed in 4 languages

Note 3) A4 document with 6% coverage

AR-C160/C270 supply system (Europe/Australia/New Zealand)

No.	Name	Content	Life	Model	Remark
1	Developer unit kit	Developer unit × 4	—	AR-DW1	
2	Waste toner container kit	Drum waste toner container (AS) × 1 Transfer waste toner tank unit × 1	40K	AR-C15HB	5% coverage of each of C/M/Y/K, total 20% coverage
3	Fusing oil	Fusing oil (80g) × 10	40K × 10	AR-C15LL	AR-C15LL = AR-C15SL × 10
4	Upper heat roller kit	Upper heat roller unit × 1 Upper cleaning roller × 1	40K	AR-C16UH	
5	Lower heat roller kit	Lower heat roller unit × 1 Fusing separation pawl lower × 5	40K	AR-C16LH	
6	Fusing oil applying kit	Oil applying unit × 1 Oil filter unit × 1 Applying unit mini oil bottle × 1	40K	AR-C25KH	
7	Filter kit	Process ozone filter × 2 Toner duct ozone filter × 1 Toner filter × 1	80K	AR-C15FL	
8	Transfer belt kit	Transfer belt × 1 Transfer roller × 4	160K	AR-C16TT	
9	Transfer belt cleaning blade	Transfer belt cleaning blade × 1	80K	AR-C16TK	AR-C16TK = AR-C160K × 10
10	Staple cartridge	Staple cartridge (SF-SC11) × 3	5,000 × 3	SF-SC11	For AR-SS2. Common with FN1.
11	Fusing unit	Fusing unit × 1 (Except for motor, PWB, upper/lower lamps)		AR-C16FU	(For servicing)
12	Transfer unit	Transfer unit × 1 (Except for motor)		AR-C16TU	(For servicing)
13	DV seal kit	DV seal unit (assemble) × 3	80K	AR-C15DS	
14	Staple cartridge	Staple cartridge	3,000 × 3	AR-SC1	For AR-FN4

AR-C150 Supply List (Asia/Central & South America/Middle East/others)

	NAME	CONTENT(S)	LIFE Note 1)	Model	DIMENSIONS (W × D × H): mm /WHIGHT: kg	INCOMPATIBILITY	REMARK
1	Color Toner (cyan)	Toner Cartridge (cyan) (267g), Instruction Sheet × 10	4K Note 1) × 10	AR-C15CT6	329 × 590 × 218/5.62	A	(AR-C15ST6) × 10 = AR-C15CT6
2	Color Toner (magenta)	Toner Cartridge (magenta) (267g), Instruction Sheet × 10	4K Note 1) × 10	AR-C15CT7	329 × 590 × 218/5.62	A	(AR-C15ST7) × 10 = AR-C15CT7
3	Color Toner (yellow)	Toner Cartridge (yellow) (267g), Instruction Sheet × 10	4K Note 1) × 10	AR-C15CT8	329 × 590 × 218/5.62	A	(AR-C15ST8) × 10 = AR-C15CT8
4	Toner (black)	Toner Cartridge (black) (600g), Instruction Sheet × 10	8K Note 1) × 10	AR-C15CT1	429 × 610 × 246/10.97	A	(AR-C15ST1) × 10 = AR-C15CT1 The AR-C25CT1 or AR-C16CT1 can be used.
5	Color Developer kit	[Developer (cyan × 1, magenta × 1, yellow × 1) (630g each) × 3	40K each × 3	AR-C15CD9	294 × 391 × 170/7.71		(AR-C15SD9) × 3 = AR-C15CD9
6	Black Developer kit	[Developer (black) (630g) × 1 × 10	40K	AR-C15CD1	204 × 391 × 290/9.10		(AR-C15SD1) × 10 = AR-C15CD1
7	Drum Unit	Drum Unit × 1 (Drum/Unit Parts included) × 1 Color Seal (C, M, Y, Bk each × 2)	40K	AR-C15DU	402 × 568 × 198/6.73		Not applicable for AR-C160/C250/C270
8	Drum Kit	Drum × 1 Cleaning Blade × 1 Toner Receiving Seal × 1 Charger Unit × 1 Color Seal (C, M, Y, Bk each × 1)	40K	AR-C15DK	418 × 146 × 519/4.60		Not applicable for AR-C160/C250/C270

Note 1) A4 document with 10% coverage

Note 2) Inner carton printed in 4 languages

AR-C150/250 Supply List (Asia/Middle East/Central & South America/Others)

	NAME	CONTENT (S)	LIFE	MODEL	INCOMPATIBILITY	REMARK
1	Color Toner (cyan)	Toner Cartridge (cyan) (300g), Instruction Sheet × 10	4.85K × 10 Note 1)	AR-C25CT6	A	(AR-C25ST6) × 10 = AR-C25CT6
2	Color Toner (magenta)	Toner Cartridge (magenta) (300g), Instruction Sheet × 10	4.85K × 10 Note 1)	AR-C25CT7	A	(AR-C25ST7) × 10 = AR-C25CT7
3	Color Toner (yellow)	Toner Cartridge (yellow) (300g), Instruction Sheet × 10	4.85K × 10 Note 1)	AR-C25CT8	A	(AR-C25ST8) × 10 = AR-C25CT8
4	Toner (black)	Toner Cartridge (black) (600g), Instruction Sheet × 10	8.64K × 10 Note 1) 21.7K × 10 Note 3)	AR-C25CT1	A	(AR-C25ST1) × 10 = AR-C25CT1 The AR-C16CT1 can be used.
5	Color Developer kit	[Developer (cyan × 1, magenta × 1, yellow × 1) (630g each)] × 3	40K each color × 3	AR-C15CD9		(AR-C15SD9) × 3 = AR-C15CD9
6	Black Developer kit	[Developer (black) (630g) × 1] × 10	40K × 10	AR-C15CD1		(AR-C15SD1) × 10 = AR-C15CD1
7	Drum Unit	Drum Unit × 1 (Drum/Unit Parts included) × 1 Color Seal (C, M, Y, Bk each × 2)	40K	AR-C25DU		Not applicable for black in AR-C160/C270.
8	Drum Kit	Drum × 1 Cleaning Blade × 1 Toner Receiving Seal × 1 Charger Unit × 1 Color Seal (C, M, Y, Bk each × 1)	40K	AR-C25DK		Not applicable for black in AR-C160/C270.

Note 1) A4 document with 10% coverage

Note 2) Inner carton printed in 4 languages

Note 3) A4 document with 6% coverage

AR-C150/C250 supply system (Middle and South America/Middle East/Asia/others)

No.	Name	Content	Life	Model	Remark
1	Developer unit kit	Developer unit × 4	—	AR-DW1	
2	Waste toner container kit	Drum waste toner container (AS) × 1 Transfer waste toner tank unit × 1	40K	AR-C15HB	5% coverage of each of C/M/Y/K, total 20% coverage
3	Fusing oil	Fusing oil (80g) × 10	40K × 10	AR-C15LL	AR-C15LL = AR-C15SL × 10
4	Upper heat roller kit	Upper heat roller unit × 1 Upper cleaning roller × 1	40K	AR-C15UH AR-C25UH	For AR-C150 For AR-C250
5	Lower heat roller kit	Lower heat roller unit × 1 Fusing separation pawl lower × 5	40K	AR-C15LH AR-C25LH	For AR-C150 For AR-C250
6	Fusing oil applying kit	Oil applying unit × 1 Oil filter unit × 1 Applying unit mini oil bottle × 1	40K	AR-C15KH AR-C25KH	For AR-C150 For AR-C250
7	Filter kit	Process ozone filter × 2 Toner duct ozone filter × 1 Toner filter × 1	80K	AR-C15FL	
8	Transfer belt kit	Transfer belt × 1 Belt separation pawl × 2	160K	AR-C15TT	
9	Transfer roller kit	Transfer blade × 1 Transfer roller × 4	80K	AR-C15TX	
10	Staple cartridge	Staple cartridge (SF-SC11) × 3	5,000 × 3	SF-SC11	For AR-SS2. Common with FN1.
11	Fusing unit	Fusing unit × 1 (Except for motor, PWB, upper/lower lamps)	40K	AR-C15FU AR-C25FU	(For servicing) For AR-C150 For AR-C250
12	Transfer unit	Transfer unit × 1 (Except for motor)		AR-C15TU	(For servicing)
13	DV seal kit	DV seal unit (assemble) × 3	80K	AR-C15DS	
14	Staple cartridge	Staple cartridge	3,000 × 3	AR-SC1	For AR-FN4

AR-C160/C270 Supply List (Asia/Middle East/Central & South America/Others)

	NAME	CONTENT (S)	LIFE	MODEL	INCOMPATIBILITY	REMARK
1	Color Toner (cyan)	Toner Cartridge (cyan) (300g), Instruction Sheet × 10	4.85K × 10 Note 1)	AR-C25CT6	A	(AR-C25ST6) × 10 = AR-C25CT6
2	Color Toner (magenta)	Toner Cartridge (magenta) (300g), Instruction Sheet × 10	4.85K × 10 Note 1)	AR-C25CT7	A	(AR-C25ST7) × 10 = AR-C25CT7
3	Color Toner (yellow)	Toner Cartridge (yellow) (300g), Instruction Sheet × 10	4.85K × 10 Note 1)	AR-C25CT8	A	(AR-C25ST8) × 10 = AR-C25CT8
4	Toner (black)	Toner Cartridge (black) (650g), Instruction Sheet × 10	21.7K × 10 Note 3)	AR-C16CT1	A	(AR-C16ST1) × 10 = AR-C16CT1 The AR-C25CT1 can be used.
5	Color Developer kit	[Developer (cyan × 1, magenta × 1, yellow × 1) (630g each)] × 3	40K each color × 3	AR-C15CD9		(AR-C15SD9) × 3 = AR-C15CD9
6	Black Developer kit	[Developer (black) (630g) × 1] × 10	80K × 10	AR-C16CD1		(AR-C16SD1) × 10 = AR-C16CD1 Not applicable for AR-C150 and AR-C250.
7	Drum Unit	Drum Unit × 1 (Drum/Unit Parts included) × 1 Color Seal (C, M, Y, Bk each × 2)	40K	AR-C25DU		Use for C, M,Y
8	Drum Kit	Drum × 1 Cleaning Blade × 1 Toner Receiving Seal × 1 Charger Unit × 1 Color Seal (C, M, Y, Bk each × 1)	40K	AR-C25DK		Use for C, M,Y
9	Drum	Drum (Black)	80K	AR-C16DR		Use for Black Not applicable for AR-C150 and AR-C250.
10	Main charger kit	Main charger unit × 1 Cleaning blade × 1 Toner receiving seal × 1 RS roller cleaner × 1	40K	AR-16MK		Use for Black Not applicable for AR-C150 and AR-C250.

Note 1) A4 document with 10% coverage

Note 2) Inner carton printed in 4 languages

Note 3) A4 document with 6% coverage

AR-C160/C270 supply system (Middle and South America/Middle East/Asia/others)

No.	Name	Content	Life	Model	Remark
1	Developer unit kit	Developer unit × 4	—	AR-DW1	
2	Waste toner container kit	Drum waste toner container (AS) × 1 Transfer waste toner tank unit × 1	40K	AR-C15HB	5% coverage of each of C/M/Y/K, total 20% coverage
3	Fusing oil	Fusing oil (80g) × 10	40K × 10	AR-C15LL	AR-C15LL = AR-C15SL × 10
4	Upper heat roller kit	Upper heat roller unit × 1 Upper cleaning roller × 1	40K	AR-C16UH	
5	Lower heat roller kit	Lower heat roller unit × 1 Fusing separation pawl lower × 5	40K	AR-C16LH	
6	Fusing oil applying kit	Oil applying unit × 1 Oil filter unit × 1 Applying unit mini oil bottle × 1	40K	AR-C25KH	
7	Filter kit	Process ozone filter × 2 Toner duct ozone filter × 1 Toner filter × 1	80K	AR-C15FL	
8	Transfer belt kit	Transfer belt × 1 Transfer roller × 4	160K	AR-C16TT	
9	Transfer belt cleaning blade	Transfer belt cleaning blade × 1	80K	AR-C16TK	AR-C160TK = AR-C160K × 10
10	Staple cartridge	Staple cartridge (SF-SC11) × 3	5,000 × 3	SF-SC11	For AR-SS2. Common with FN1.
11	Fusing unit	Fusing unit (Except for motor, PWB, upper/lower lamps) × 1	40K	AR-C16FU	(For servicing)
12	Transfer unit	Transfer unit (Except for motor) × 1		AR-C16TU	(For servicing)
13	DV seal kit	DV seal unit (assemble) × 3	80K	AR-C15DS	
14	Staple cartridge	Staple cartridge	3,000 × 3	AR-SC1	For AR-FN4

2. Compatibility of Supplies for AR-C150/C250/C160/C270 (Overseas)

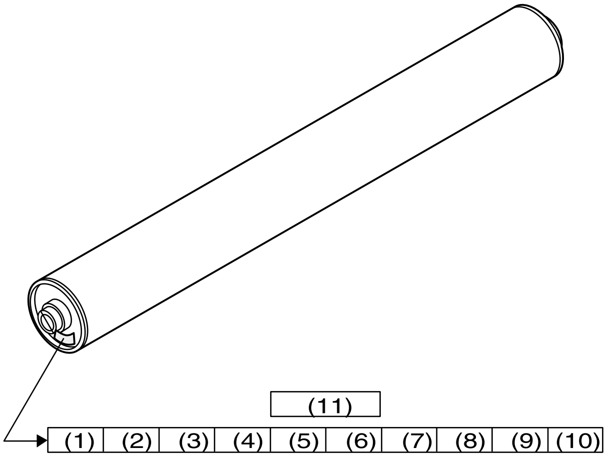
❑ - Target Model, ❍ - Usable, ∆ - Usable (under some conditions), × - Not usable, Colored portions: To be discontinued after the current stock is used up.

Item	Content	Model Name	Product ID Model Name	AR-C150	AR-C250	AR-C160/C270	Remarks
Toner (Black)	Toner (Black) 600g	AR-C15MT1/LT1/CT1	A3ARC15MT1/LT1/CT1	❍	❍	❍	Some of initial 15MT1 lot don't have a heat seal which is an action for highland region.
	Toner (Black) 600g	AR-C25MT1/LT1/CT1	A3ARC25MT1/LT1/CT1	❍	❍	❍	
	Toner (Black) 650g	AR-C16MT1/LT1/CT1	A3ARC16MT1/LT1/CT1	❑	❑	❑	
Color Toner (Cyan)	Color Toner (Cyan) 267g	AR-C15MT6/LT6/CT6	A3ARC15MT6/LT6/CT6	❍	❍	❍	Using increased toner (300g) provides merit cost-wise.
	Color Toner (Cyan) 300g	AR-C25MT6/LT6/CT6	A3ARC25MT6/LT6/CT6	❑	❑	❑	
Color Toner (Magenta)	Color Toner (Magenta) 267g	AR-C15MT7/LT7/CT7	A3ARC15MT7/LT7/CT7	❍	❍	❍	Using increased toner (300g) provides merit cost-wise.
	Color Toner (Magenta) 300g	AR-C25MT7/LT7/CT7	A3ARC25MT7/LT7/CT7	❑	❑	❑	
Color Toner (Yellow)	Color Toner (Yellow) 267g	AR-C15MT8/LT8/CT8	A3ARC15MT8/LT8/CT8	❍	❍	❍	Using increased toner (300g) provides merit cost-wise.
	Color Toner (Yellow) 300g	AR-C25MT8/LT8/CT8	A3ARC25MT8/LT8/CT8	❑	❑	❑	
Developer (Black)	Developer (Black) 630g	AR-C15MD1/LD1/CD1	A3ARC15MD1/LD1/CD1	❑	❑	×	With black developer (for 80K), coating material of carrier changed.
	Developer (Black) 630g/for 80K	AR-C16MD1/LD1/CD1	A3ARC16MD1/LD1/CD1	×	×	❑	
Color Developer	Color Developer Kit (Cyan/Magenta/Yellow) 630g/for 40K	AR-C15MD9/LD9/CD9	A3ARC15MD9/LD9/CD9	❑	❑	❑	
Starter Kit	Starter Kit	AR-C25SK1	A3ARC25SK1	❑	❑	×	With black developer (for 80K), coating material of carrier changed.
	Starter Kit (includes 80K black developer)	AR-C16SK1	A3ARC16SK1	×	×	❑	
Drum	Drum Unit	AR-C15DU	A3ARC15DU	❍	×	×	15DU/DK cannot be used for AR-C250/160/C270, because doing so will cause a defect such as white streak on paper edge.
	Drum Kit	AR-C15DK	A3ARC15DK	❍	×	×	
	Drum Unit (with PET to prevent white streak on paper edge)	AR-C25DU	A3ARC25DU	❑	❑	❑ (COLOR)	
	Drum Unit (with PET to prevent white streak on paper edge)	AR-C25DK	A3ARC25DK	❑	❑	❑ (COLOR)	
	Drum for Black	AR-C16DR	A3ARC16DR	×	×	❑ (BK)	
	Main Charger Kit	AR-C16MK	A3ARC16MK	×	×	❑ (BK)	

3. Photoconductor, developer, toner

A. Serial number identification

(1) Photoconductor



(1) Figure
Indicates the sensitivity of the photoconductor.

(2) (3) Alphabet
Indicates the model code. This machine's code is PD (or PN for the AR-C160 black.).

(4) Figure
Indicates the end digit of the production year.

(5) Figure or X, Y, Z
Indicates the production month. X= October, Y= November, Z= December

(6) Figure
Indicates the production lot.

(7) Figure
Indicates the sub lot division.

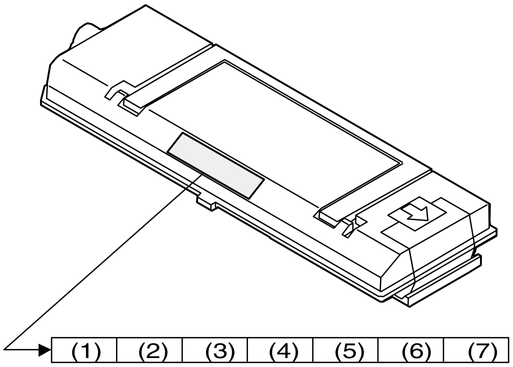
(8) Figure or X, Y, Z
Indicates the packing month. X= October, Y= November, Z= December

(9) (10) Figure
Indicates the packing date.

(11) Figure or alphabet
Indicates the product name of the drum.

NOTE: The shape of flange for the AR-C160 black OPC drum differs from the others.

(2) Developer



(1) (2) Alphabet
Indicates the developer color as shown below:

Color	Alphabet
Yellow	YR
Magenta	MR
Cyan	CR
Black	KS (KT for the AR-C160)

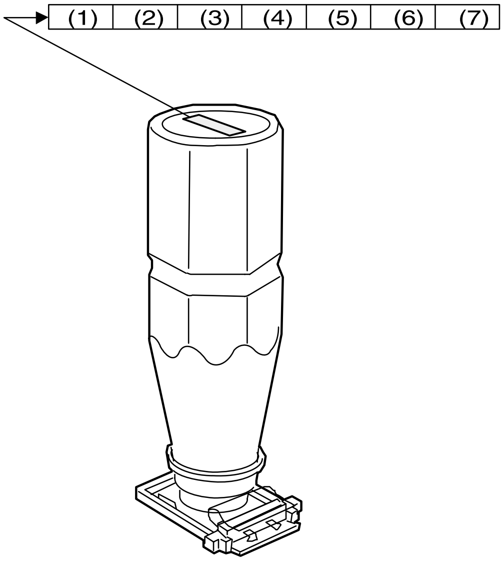
(3) Figure, alphabet
Indicates the production month. X= October, Y= November, Z= December

(4) (5) Figure
Indicates the production date.

(6) Figure
Indicates the end digit of the production year.

(7) Alphabet
Indicates the management code. (A to Z)

(3) Toner



(1) (2) Alphabet
Indicates the toner color as shown below:

Color	Alphabet
Yellow	RY
Magenta	RM
Cyan	RC
Black	SK

(3) Figure, alphabet
Indicates the production month. X= October, Y= November, Z= December

(4) (5) Figure
Indicates the production date.

(6) Figure
Indicates the end digit of the production year.

(7) Alphabet
Indicates the management code. (A to Z)

4. Paper

(1) Color print paper

The recommendable color print paper is shown below.

Use of the recommendable paper provides the best copy quality.

The standard paper follows it.

Kind	Model	Supplier	Specification	Note
Recommend paper	Hammermill LASER PRINT	Hammermill	[11 × 8.5", $90g/m^2$] [11 × 17", $90g/m^2$]	
	Neusiedler Color Copy ($90g/m^2$)	Neusiedler	[A4, $90g/m^2$] [A3, $90g/m^2$]	
Standard paper	Necosa	Necosa	[11 × 8.5", $75g/m^2$] [11 × 17", $75g/m^2$]	
	Hammermill DP	Hammermill	[11 × 8.5", $75g/m^2$] [11 × 17", $75g/m^2$]	
	Igepa	Igepa	[A4, $80g/m^2$] [A3, $80g/m^2$]	
OHP sheet (Specified paper)	BG74.6	FOREX	A4 size, $140g/m^2$	Made by FOLEX

When paper of low white level is used, normal copy quality (color reproduction) may not be obtained.
For OHP sheet, be sure to use the specified one.

(2) Monochrome print paper

For monochrome print, the following specifications serve as the criteria of applicable or not.

(Values are under 20 ± 1°C, 65 ± 2%RH)

Item	Standard paper	Applicable paper
Weight	60 – $90g/m^2$	60 – $120g/m^2$
Smoothness	Front: ≥ 20s Back : ≥ 20s (BEEK method)	Front: ≥ 20s Back : ≥ 18s (BEEK method)
Vesicularity	≥ 7s (BEEK method)	Same as the left.
Untransparency	≥ 77%	Same as the left.
Surface resistance	$1 \times 10^{10} – 5 \times 10^{10}\Omega cm$ (20 ± 1°C, 65 ± 2%RH)	$\geq 5.0 \times 10^{8}\Omega cm$ (20 ± 1°C, 65 ± 2%RH)
Hardness	Vertical: ≥ 17cm Horizontal: ≥ 13cm (CLARK method)	Same as the left.
Water content	4.5 % – 7.0%	Same as the left.
Thickness	75µm – 110µm	Same as the left.
Dimensions	Standard ± 1mm (*)	Same as the left.

(3) Print paper dimension specification

(*) Standard dimensions are as follows:

B5 (182 ± 1 × 257 ± 1mm)
B6 (128 ± 1 × 182 ± 1mm)
A4 (210 ± 1 × 297 ± 1mm)
A5 (148 ± 1 × 210 ± 1mm)
A6 (105 ± 1 × 148 ± 1mm)
8.5" ± 5/128 × 14" ± 5/128 inch
8.5" ± 5/128 × 11" ± 5/128 inch
8.5" ± 5/128 × 8.5" ± 5/128 inch
8.5" ± 5/128 × 13" ± 5/128 inch

(Note)

(Paper which cannot be used)

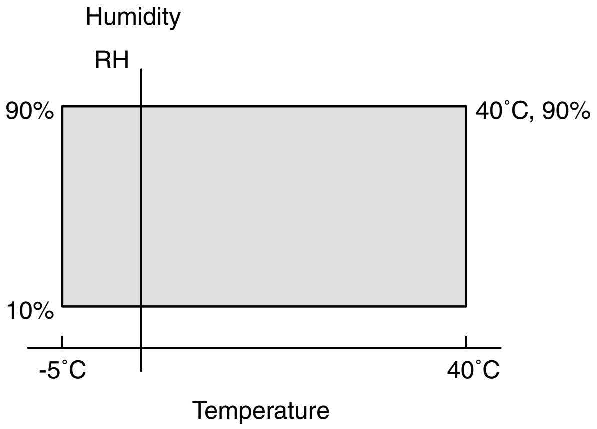
The following paper cannot be used for printing.

- Paper with coated surface
- Paper with rough surface, or too smooth surface
- Documents which are separated from a pasted book
- Broken paper, folded paper, embossed paper, dry paper, wet paper, curled paper
- Paper with metal tab or clip
- Paper with holes, cutout, or perforations

5. Environmental conditions

(1) Transit environment (sealed)

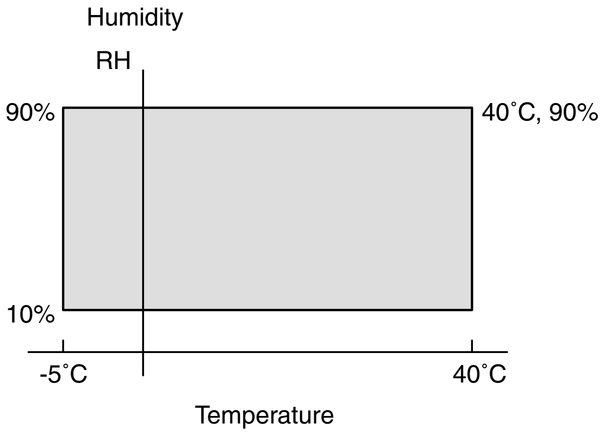
Max. change: Temperature 15°C/hour,
Relative humidity 15%RH/hour, without dew



Tempera-ture (min)	Humidity (min)	Tempera-ture (mid)	Humidity (mid)	Tempera-ture (max)	Humidity (max)	Period
–5°C	10%			40°C	90%	—

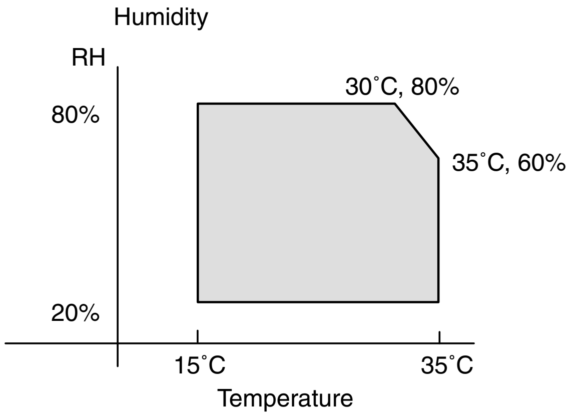
(2) Storage environment (sealed)

Max. change: Temperature 15°C/hour,
Relative humidity 15%RH/hour, without dew



Tempera-ture (min)	Humidity (min)	Tempera-ture (mid)	Humidity (mid)	Tempera-ture (max)	Humidity (max)	Period
–5°C	10%			40°C	90%	—

(Unsealed condition)

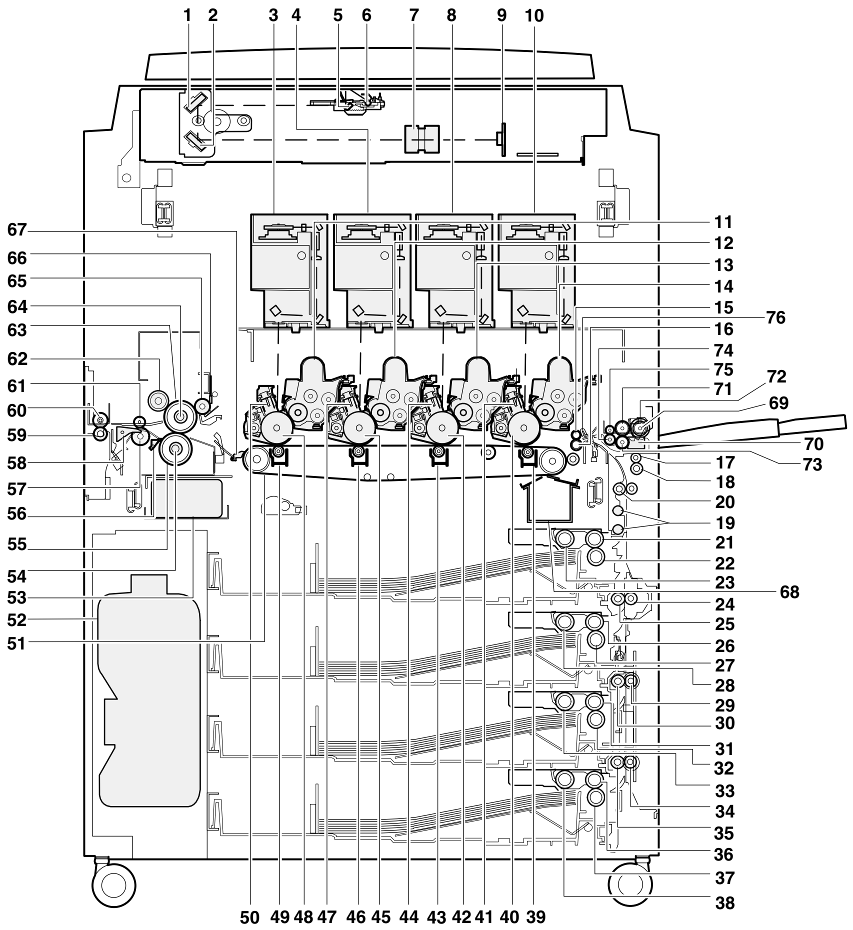


Tempera-ture (min)	Humidity (min)	Tempera-ture (mid)	Humidity (mid)	Tempera-ture (max)	Humidity (max)	Period
15°C	20%	30°C	80%	35°C	60%	—

[5] EXTERNAL VIEW AND INTERNAL STRUCTURE

B. Internal parts

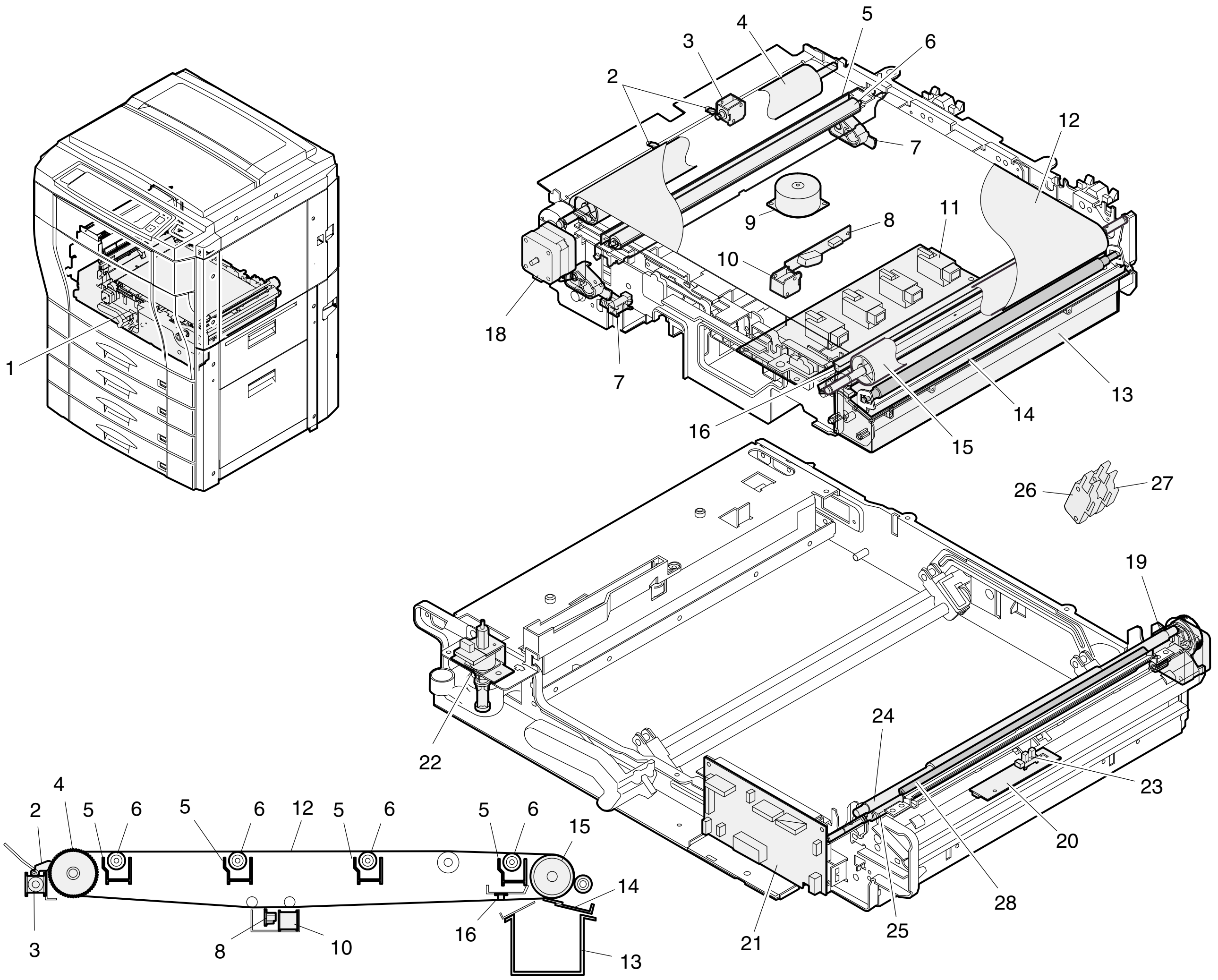
(1) Cross section



No.	Parts		Note
	Name	Function and operation	
1	No. 2 mirror	Sends the original image to No. 3 mirror.	
2	No. 3 mirror	Send the original image to the CCD.	
3	Y-LSU unit	Converts yellow components of image signals sent from the ICU PWB into laser beams, and radiates the beams onto the OPC drum.	
4	M-LSU unit	Converts magenta components of image signals sent from the ICU PWB into laser beams, and radiates the beams onto the OPC drum.	
5	No. 1 mirror	Sends the original image to No. 2 mirror.	
6	Scanner lamp	Radiates light to the CCD for scanning the original image.	
7	CCD lens	Reduces the original image (light) and project it to the CCD.	
8	C-LSU unit	Converts cyan components of image signals sent from the ICU PWB into laser beams, and radiates the beams onto the OPC drum.	
9	CCD PWB	Reads the original image and converts it into electrical signals.	
10	K-LSU unit	Converts black components of image signals sent from the ICU PWB into laser beams, and radiates the beams onto the OPC drum.	
11	Developing roller (Y)	Attaches toner on the OPC drum. (Y)	
12	Developing roller (M)	Attaches toner on the OPC drum. (M)	
13	Developing roller (C)	Attaches toner on the OPC drum. (C)	
14	Developing roller (K)	Attaches toner on the OPC drum. (K)	
15	Upper resist roller	Transports paper to the transfer section.	
16	Lower resist roller	Transports paper to the transfer section.	
17	Paper transport roller 1	Transports paper to the transfer resist roller.	
18	Idle roller	Applies pressure to paper and the transport roller.	
19	Idle roller	Prevents against paper skew.	
20	Paper transport roller 1	Transports paper to the transfer section (transfer resist roller).	
21	Paper feed tray (No. 1 paper tray)	Feeds paper to the paper transport section.	
22	Separation roller (No. 1 paper tray)	Separates paper and transport it to the paper transport section.	

No.	Parts		Note
	Name	Function and operation	
23	Paper pickup roller (No. 1 paper tray)	Sends paper to the paper feed roller.	
24	Idle roller	Applies pressure to paper and the transport roller.	
25	Paper transport roller 2	Transports paper to the transport roller 1.	
26	Paper feed roller (No. 2 paper roller)	Feeds paper to the paper transport section.	
27	Separation roller (No. 2 paper tray)	Separates paper and prevents against double feed.	
28	Paper pickup roller (No. 2 paper tray)	Sends paper to the paper feed roller.	
29	Idle roller	Applies pressure to paper and the transport roller.	
30	Paper transport roller 3	Transports paper to the transport roller 2.	
31	Paper feed roller (No. 3 paper tray)	Feeds paper to the paper transport section.	
32	Separation roller (No. 3 paper tray)	Separates paper and prevents against double feed.	
33	Paper pickup roller (No. 3 paper tray)	Feeds paper to the paper feed roller.	
34	Idle roller	Applies pressure to paper and the transport roller.	
35	Paper transport roller 4	Transports paper to the transport roller 3.	
36	Paper feed roller (No. 4 paper tray)	Feeds paper to the paper transport section.	
37	Separation roller (No. 4 paper tray)	Separates paper and prevents against double feed.	
38	Paper pickup roller (No. 4 paper tray)	Sends paper to the paper feed roller.	
39	Transfer roller (K)	Applies a transfer voltage to the transfer belt.	
40	OPC drum unit (K)	Forms black latent electrostatic images.	
41	Main charger unit (K)	Charges the black OPC drum negatively.	
42	OPC drum unit (C)	Forms cyan latent electrostatic images.	
43	Transfer roller (C)	Applies a transfer voltage to the transfer belt.	
44	Main charger unit (C)	Charges the cyan OPC drum negatively.	
45	OPC drum unit (M)	Forms magenta latent electrostatic images.	
46	Transfer roller (M)	Applies a transfer voltage to the transfer belt.	
47	Main charger unit (M)	Charges the magenta OPC drum negatively.	
48	OPC drum unit (Y)	Forms yellow latent electrostatic images.	
49	Transfer roller (Y)	Applies a transfer voltage to the transfer belt.	
50	Main charger unit (Y)	Charges the yellow OPC drum negatively.	
51	Transfer belt	Transfers toner images on the OPC drum to paper.	
52	Waste toner bottle	Collects waste toner.	
53	Oil tank	Stores oil.	
54	Lower heater lamp	Heats the lower heat roller.	
55	Lower heat roller	Applies a pressure and heat to toner and fuses it to paper.	
56	Lower separation pawl	Separates paper mechanically from the lower heat roller.	
57	Fusing transport roller	Transports paper to the paper exit roller.	
58	ADU gate	Switches the paper route in the duplex mode.	
59	Paper exit roller	Discharges paper outside the machine.	
60	Idle roller	Applies pressure to paper and the paper exit roller.	
61	Idle roller	Applies pressure to paper and the transport roller.	
62	Upper cleaning roller	Cleans the fusing roller.	
63	Upper heat roller	Applies a pressure and heat to toner and fuses it to paper.	
64	Upper heat lamp	Heats the upper heat roller.	
65	Oil roller	Applies oil to the upper heat roller.	
66	Oil blade	Controls oil quantity on the oil roller to be even.	
67	Separation pawl	Separates paper from the transfer belt mechanically.	Japan only
68	Waste toner bottle	Collects waste toner from transfer belt.	
69	Paper pickup roller	Sends paper to the paper feed roller.	Manual paper feed section
70	Paper pickup solenoid	Presses paper onto the paper pickup roller.	
71	Manual paper feed roller	Feeds paper to the paper transport section.	
72	Manual paper feed clutch	Transmits the paper feed drive motor power to the manual paper feed unit. (Controls ON/OFF of the manual paper feed unit.)	
73	Separation roller	Separates paper to prevent against double feed.	
74	Manual transport roller	Applies a pressure to paper and the transport roller to give the transport roller power to the paper.	
75	Idle roller	Applies a pressure to paper and the transport roller and gives a transport power of the transport roller to the paper.	
76	Resist roller cleaner	Clean the resist roller.	AR-C160/C270

f. Transfer section

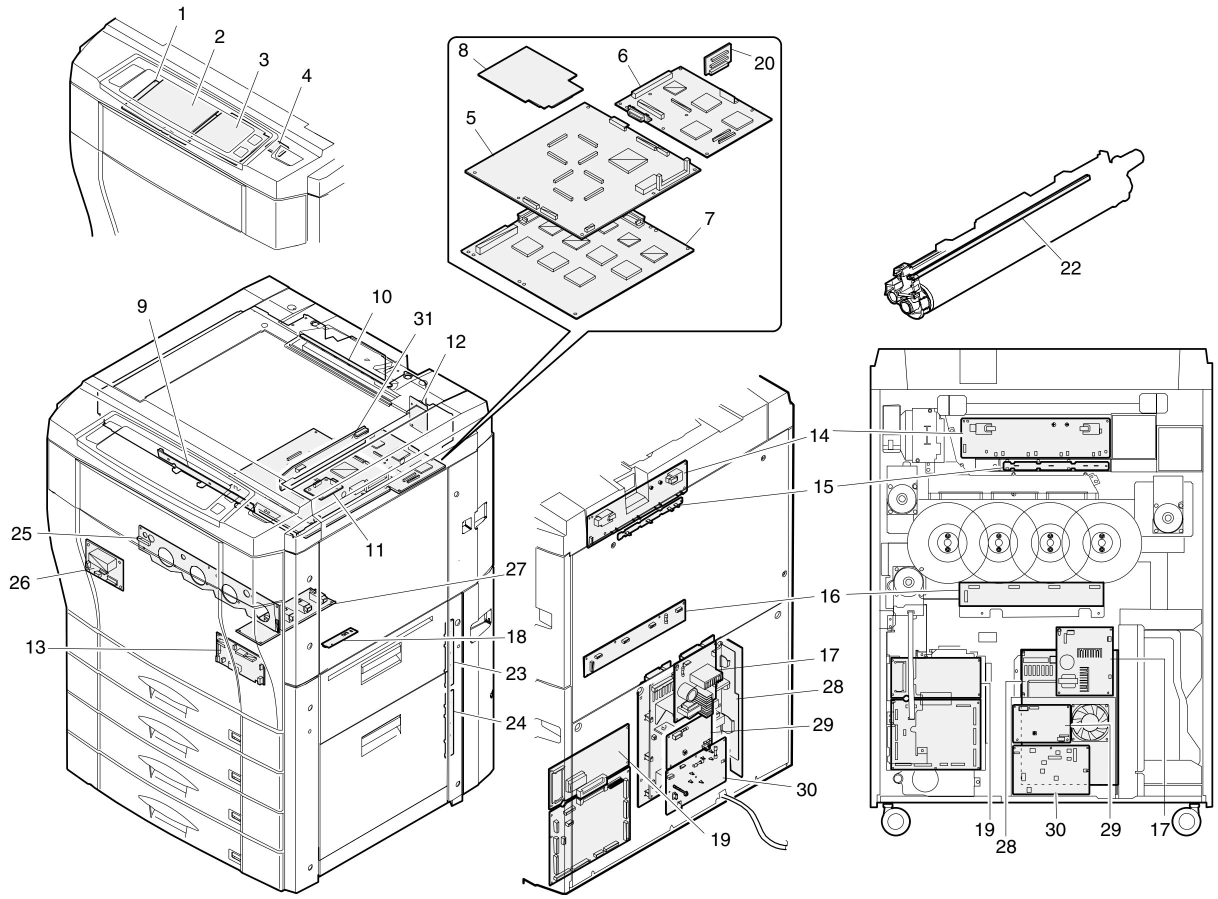


No.	Parts						Model	Note
	Code	Signal name	Name	Type	Function/Operation	Active condition		
1			Transfer unit		Transfers toner from the OPC drum to paper.			
2			Transfer belt separation pawl		Separates paper from the transfer belt mechanically.			Japan only
3	BPSS	BPSS	Separation pawl solenoid		Drives the separation solenoid.			Japan only
4			Transfer belt drive roller		Drives the transfer belt.			
5			Transfer discharge electrode		Discharges electric charges of the transfer belt.			4 pcs (Y, M, C, K)
6			Transfer roller		Applies a transfer voltage to the transfer belt.			4 pcs (Y, M, C, K)
7			Lift cam		Transmits the transfer belt lift motor power to the transfer unit.			Lifted up in color print mode, and lifted down in monochrome mode.
8	PCS	PCS	Image density sensor	Photo sensor (Photo reflection)	Detects toner patch density in image density correction.	Analog input		
9	BLUM	BLUM	Transfer belt motor	Stepping motor	Lifts the transfer belt unit.			

No.	Parts						Model	Note
	Code	Signal name	Name	Type	Function/Operation	Active condition		
10	CALS	CALS	Sensor switch solenoid		Selects the image density sensor.			Switches the sensor angle depending on detection of color toner patch density or black toner patch density.
11			TC high voltage power PWB		Generates the high voltage for transfer.			
12			Transfer belt		Transfers toner images on the OPC drum onto paper.			
13			Waste toner tank		Collects toner of toner patch used in image density correction.			
14			Transfer belt cleaning blade		Cleans toner of toner patch used in image density correction.			
15			Transfer belt idle roller		Applies a tension to the transfer belt.			
16			Transfer belt cleaning pad		Cleans the back of the transfer belt.			
17	BLUD	BLUD	Transfer belt position sensor	Photo sensor (Photo transmission)	Detects that the transfer belt is lifted up or down.	L when lifting up H when lifting down		
18	BTM	BTM	Transfer belt drive motor	Stepping motor	Drives the transfer belt.			
19	PSM	PSM	Resist roller drive motor	Stepping motor	Drives the resist roller and controls ON/OFF.			
20	HUD	HUD	Temperature sensor		Detects humidity in the machine.	Analog input		Each correction of image process section is made according to this sensor data.
21			PCU sub PWB		Controls the image process section.			
22			Oil pump		Supplies fusing oil to the fusing roller.			
23	PPD1	PPD1	Paper detector in front of resist roller	Photo sensor (Photo transmission)	Detects paper in front of the resist roller.	L with paper presence		This detector signal serves as the paper transport timing control signal to the transfer section.
24			Upper resist roller		Transports paper to the transfer section.			
25			Lower resist roller		Transports paper to the transfer section.			The operation timing is controlled by the resist roller motor.
26	BELTCH1	BELTCH1	Transfer belt installation detection switch (+24V)	Micro switch	Turns ON/OFF the +24V power line from the DC main power PWB to the PCU PWB.	ON when the transfer unit operation is allowed.		
27	BELTCH2	BELTCH2	Transfer belt installation detection switch (+5V)	Micro switch	Turns ON/OFF the +5V power line from the DC main power PWB to the PCU PWB.	ON when the transfer unit operation is allowed.		
28			Resist roller cleaner		Cleaning the resist roller		AR-C160/ C270	

(8) PWB

(AR-C150/C250)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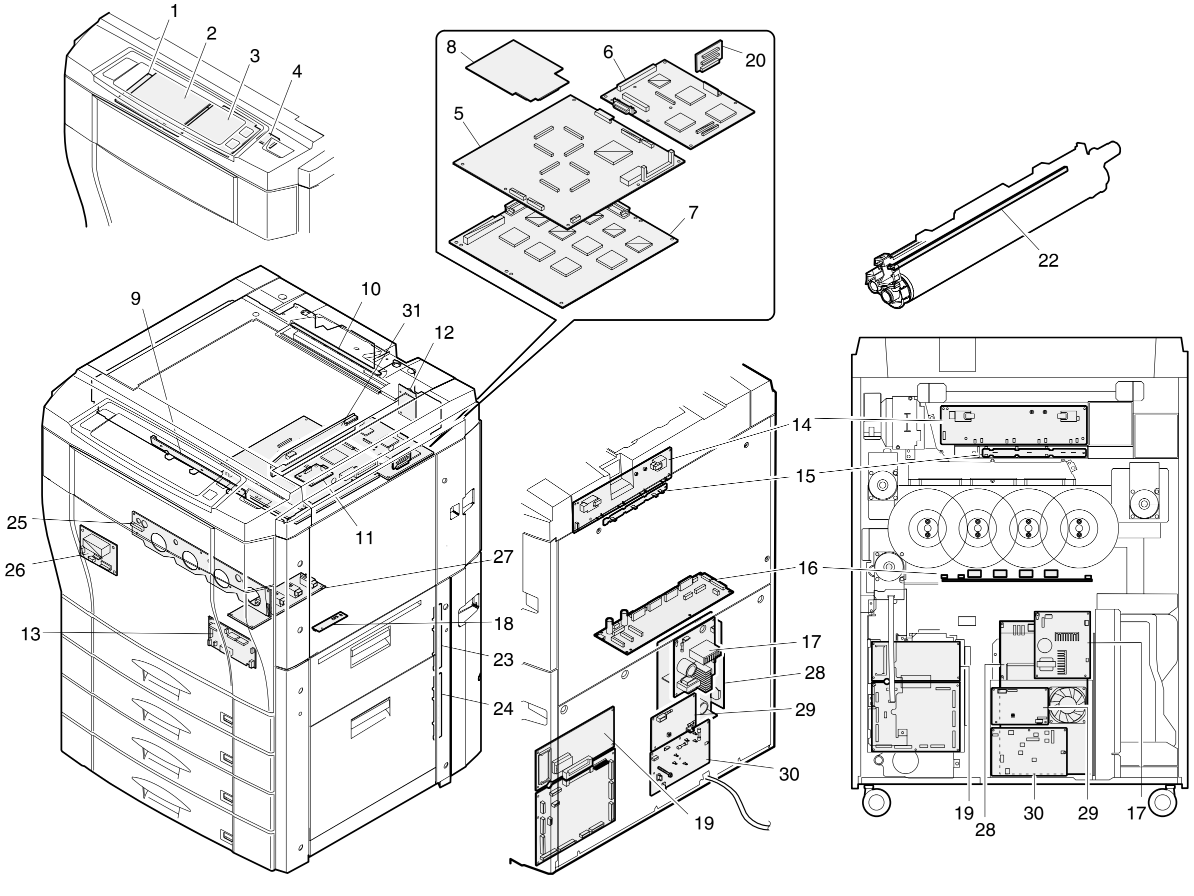
(AR-C160/C270)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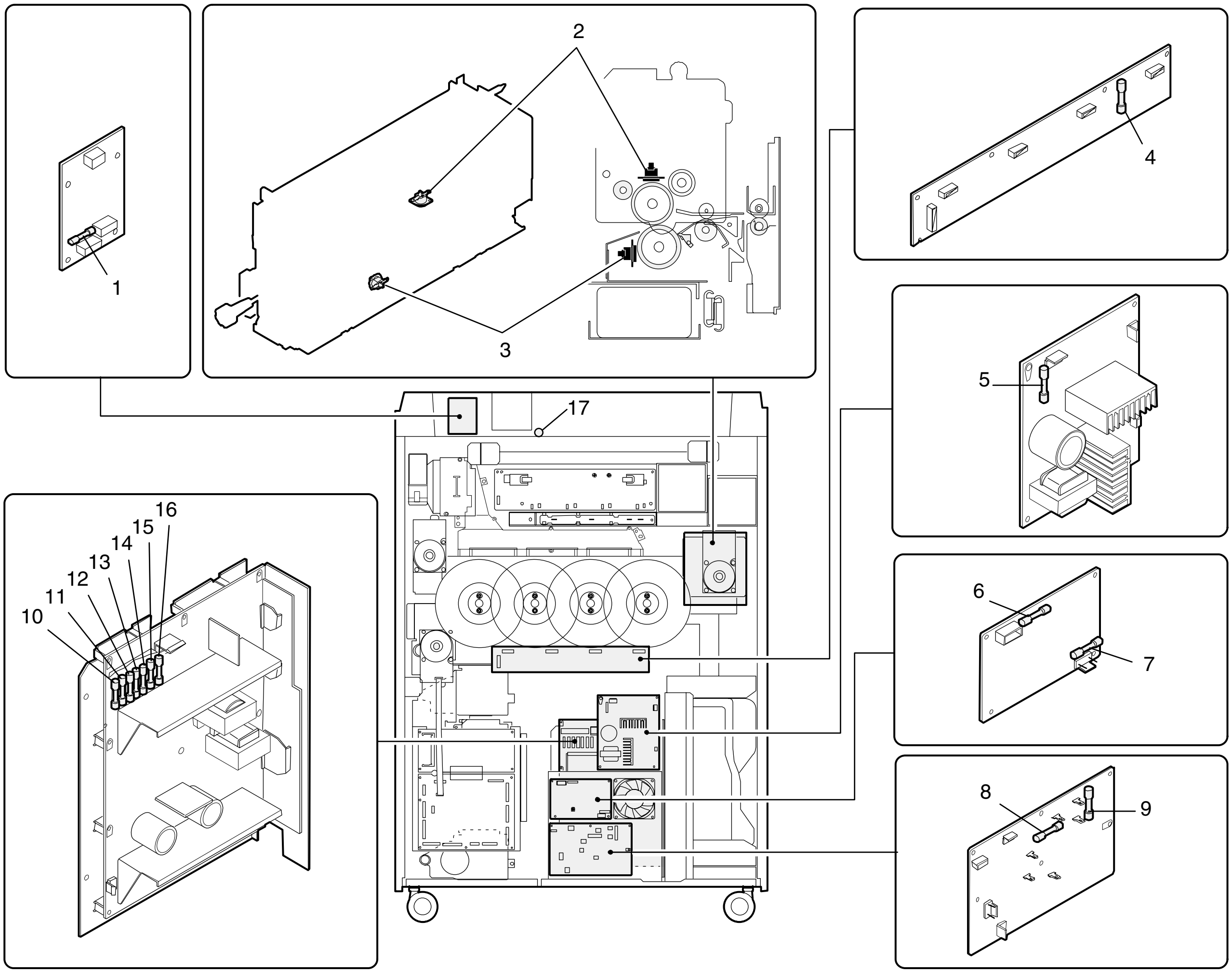
No.	Parts		Note
	Name	Function/Operation	
1	Operation PWB L	Outputs the key operation signals.	
2	OP control PWB	Controls the whole operation unit. (Displays information from the PCU PWB, and sends operation information to the PCU PWB.)	
3	Operation PWB R	Outputs the key operation signals.	
4	LCD back light inverter PWB	Drives the LCD back light.	
5	ICU-Main PWB	Controls the ICU SCN PWB, ICU IMG PWB, and CCD PWB. Converts digital image data into video signals and sends them to the scanner (writing) unit.	
6	ICU-SCN PWB	Performs correction of images outputted from the CCD.	
7	ICU-IMG PWB	Performs image processes such as area separation, color correction, black generation, gamma correction, and filter process.	
8	CPT PWB	Recognizes the bank note patterns.	
9	Original size sensor PWB (Light reception)	Detects the original size.	
10	Original size sensor (Light emitting)	Outputs light to detect the original size.	
11	CCD power PWB	Outputs the CCD PWB paper power.	
12	Scanner motor PWB	Scanner motor control PWB.	Controls the scanner motor.
13	PCU sub PWB	Controls the image process section.	
14	High voltage power PWB (MC/DV)	Generates the high voltage for main charger and the developing bias voltage.	
15	Main charger interface PWB	Interfaces the main charger power.	
16	OPC drum motor control/Signal interface PWB	Controls (drives) the OPC drum motor. (AR-C150/C250/C160/C270) Signals are interfaced. (AR-C160/C270)	
17	Scanner lamp control PWB	Controls the scanner lamp	
18	Humidity sensor PWB	Detects humidity in the machine.	Each correction of image process section is made by this sensor data.
19	PCU MAIN PWB	Controls the engine section.	
20	CCD ICU interface PWB	Relays the signal of CCD PWB and ICU-SCN PWB. (AR-C150/C250) Generates the clock at the time of monochrome print operation and relays the signal of CCD PWB and ICU-SCN PWB. (AR-C160/C270)	
21	Paper tray lift unit control PWB	Controls the paper tray lift unit.	Provided in each paper tray lift unit.
22	Discharge lamp PWB unit	Discharges electric charges on the OPC drum.	
23	IFD PWB	Equipped with No. 1/2 paper tray paper exit detectors and the right upper door open/close detector.	
24	PFD PWB unit	Equipped with No. 3/4 paper tray paper exit detectors and the right lower door open/close detector.	
25	Process control PWB	Interfaces signals between the developing unit, OPC drum unit, the high voltage PWB, and the PCU PWB.	
26	Fusing control PWB (AC sub PWB)	Interfaces the heater lamp drive control, sensor, detector signals.	
27	High voltage power PWB (TC)	Generates the transfer voltage.	
28	DC main power PWB (AR-C100/C150/C250) DC power PWB (AR-C160/C270)	Generates the voltage used by the other units than the operation unit.	
29	DC sub power PWB (AR-C150/C250) Power control PWB (AR-C160/C270)	Generates the voltage for the operation unit (AR-C150/C250) Controls powers of 24V, 5V and 3.3V in the sleep mode, the preheat mode, and the normal mode. (AR-C160/C270)	
30	AC power PWB	Controls the primary side power (AC power).	
31	CCD PWB	Converts original images (light) into electrical signals.	

(9) Fuses, thermostat

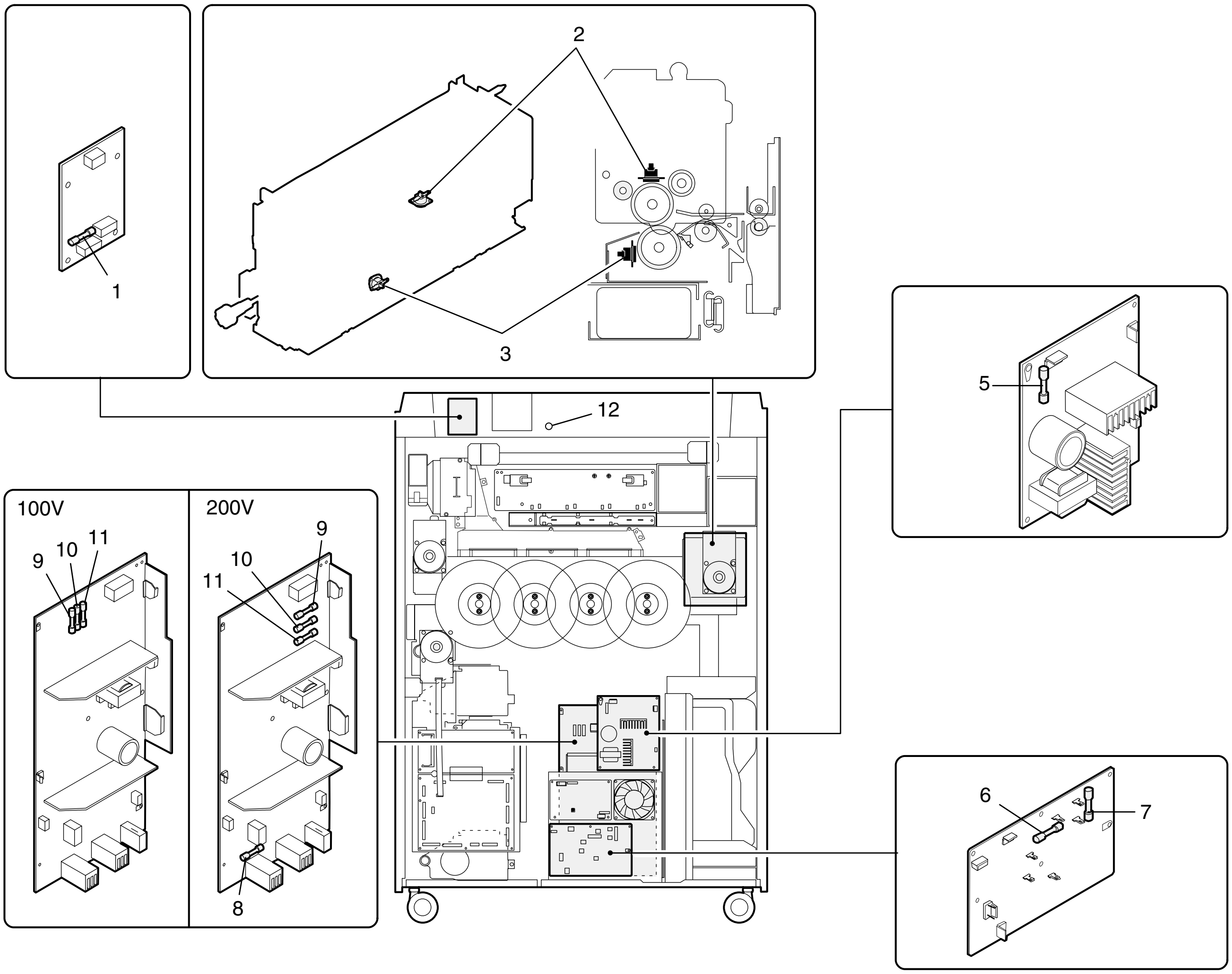
(AR-C150/C250)



No.	Parts					Note
	Code	Name	Type	Spec	Function/Operation	
1	F1	Scanner motor power fuse	Normal fuse		Protects the scanner motor and its control circuit from an overcurrent.	Scanner motor control PWB
2	HLTSU	Upper heat roller thermostat	Thermostat		Cuts conduction to the heater lamp when the temperature rises abnormally.	Fusing unit
3	HLTSD	Lower heat roller thermostat	Thermostat		Cuts conduction to the heater lamp when the temperature rises abnormally.	Fusing unit
4	F101	OPC drum motor power fuse	Normal fuse		Protects the OPC drum motor and its control circuit from an overcurrent.	OPC drum motor control PWB
5	F701	Scanner lamp power fuse	Normal fuse	250V 4A	Protects the scanner lamp from an overcurrent.	Scanner lamp control PWB
6	F712	DC sub power 26V power fuse	Normal fuse	250V 1A	Protects the PCC main PWB and the operation control PWB form an overcurrent.	DC sub power PWB
7	F711	DC sub power primary size fuse	Normal fuse	250V 3.15A	Protects the DC sub power primary side from an overcurrent.	DC sub power PWB
8	F101	AC main power primary side fuse	Normal fuse	125V 20A	Protect the AC main power primary side from an overcurrent.	Japan
		AC main power primary side fuse	Normal fuse	250V 15A	Protect the AC main power primary side from an overcurrent.	100V series
		AC main power primary side fuse	Normal fuse	240V 10A	Protect the AC main power primary side from an overcurrent.	200V series
9	F102	AC main power primary side fuse	Normal fuse	125V 20A	Protect the AC main power primary side from an overcurrent.	Japan
		AC main power primary side fuse	Normal fuse	240V 10A	Protect the AC main power primary side from an overcurrent.	200V series
10	F702	DC main power + 5V fuse	Normal fuse	125V 6.3A	Protects the ICU PWB from an overcurrent.	100V series
11	F703	DC main power + 5V fuse	Normal fuse	125V 6.3A	Protects the PCU main PWB, LSU, and CCD power PWB from an overcurrent.	100V series

No.	Parts					Note
	Code	Name	Type	Spec	Function/Operation	
12	F704	DC main power + 24V	Normal fuse	125V 6.3A	Protects the PCU main PWB from an overcurrent.	100V series
		DC main power + 24V	Normal fuse	250V 6.3A	Protects the PCU main PWB and the high voltage PWB (MC/DN) from an overcurrent.	200V series
13	F705	DC main power + 24V	Normal fuse	125V 6.3A	Protects the PCU main PWB and the high voltage PWB (MC/DN) from an overcurrent.	100V series
		DC main power + 24V	Normal fuse	250V 6.3A	Protects the PCU main PWB from an overcurrent.	200V series
14	F706	DC main power + 24V	Normal fuse	125V 6.3A	Protects the scanner motor control PWB, LSU, and CCD power PWB from an overcurrent.	100V series
		DC main power + 24V	Normal fuse	250V 6.3A	Protects the scanner motor control PWB, LSU, and CCD power PWB from an overcurrent.	200V series
15	F707	DC main power + 24V	Normal fuse	125V 6.3A	Protects the process control PWB, the OPC drum control PWB, and the developing motor (color) from an overcurrent.	100V series
		DC main power + 24V	Normal fuse	250V 6.3A	Protects the process control PWB, the OPC drum control PWB, and the developing motor (color) from an overcurrent.	200V series
16	F708	DC main power + 24V	Normal fuse	125V 6.3A	Protects the PCU main PWB, RADF, the sorter, the large capacity paper tray, the OPC drum control PWB, and the developing motor (color) from an overcurrent.	100V series
		DC main power + 24V	Normal fuse	250V 6.3A	Protects the PCU main PWB, RADF, the sorter, the large capacity paper tray, the OPC drum control PWB, and the developing motor (color) from an overcurrent.	200V series
17		Scanner lamp temperature fuse	Temperature fuse	104°C 250V 10A	Cuts conduction to the scanner lamp when the temperature rises abnormally.	

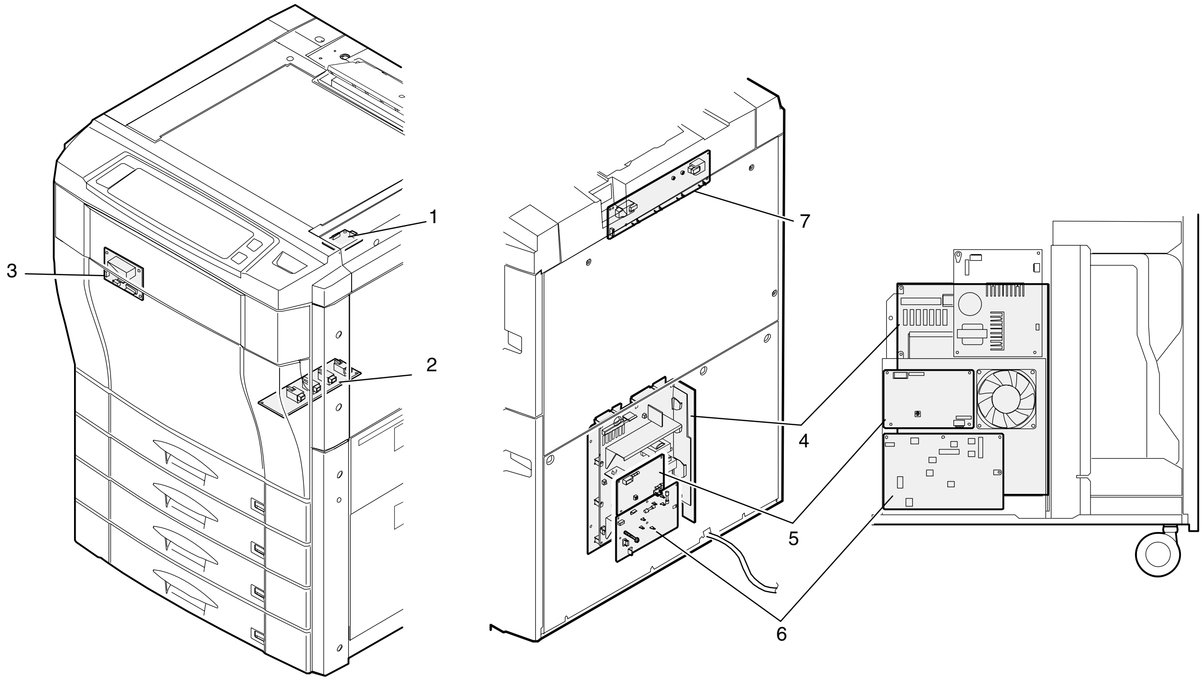
(AR-C160/C270)



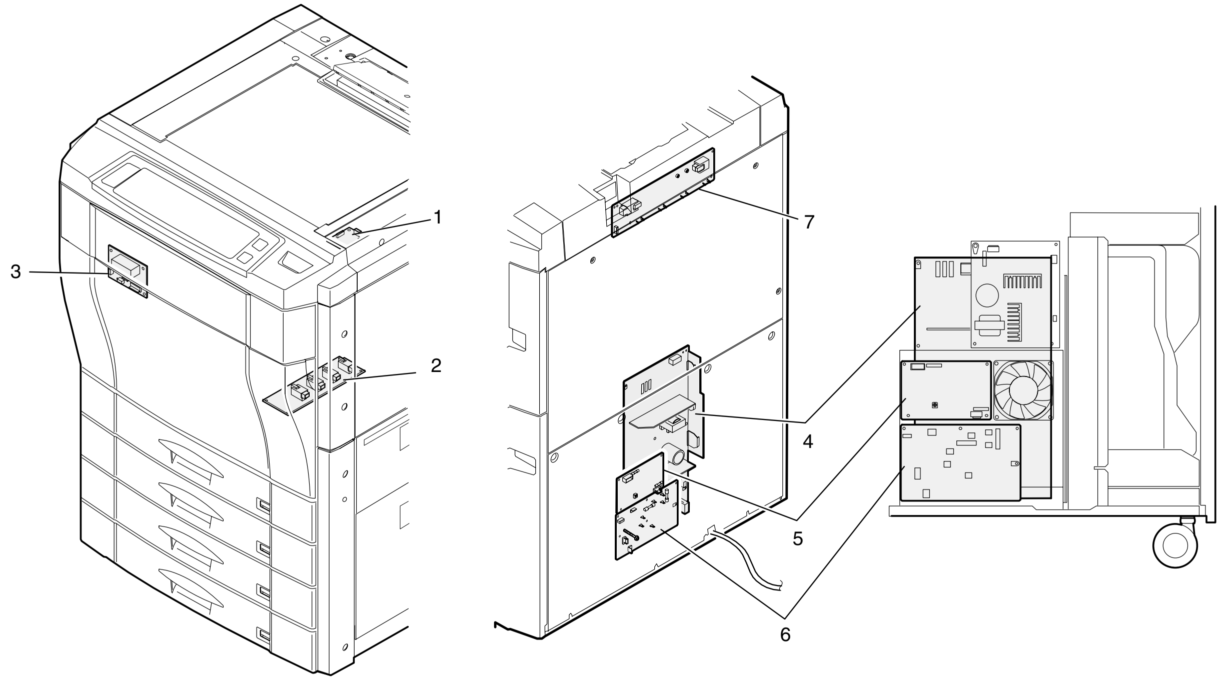
No.	Parts					Note
	Code	Name	Type	Spec	Function/Operation	
1	F1	Scanner motor power fuse	Normal fuse		Protects the scanner motor and its control circuit from an overcurrent.	Scanner motor control PWB
2	HLTSU	Upper heat roller thermostat	Thermostat		Cuts conduction to the heater lamp when the temperature rises abnormally.	Fusing unit
3	HLTSD	Lower heat roller thermostat	Thermostat		Cuts conduction to the heater lamp when the temperature rises abnormally.	Fusing unit
4	F101	OPC drum motor power fuse	Normal fuse		Protects the OPC drum motor and its control circuit from an overcurrent.	OPC drum motor control PWB
5	F701	Scanner lamp power fuse	Normal fuse	250V 4A	Protects the scanner lamp from an overcurrent.	Scanner lamp control PWB
6/7	F102/F101	AC main power primary side fuse	Normal fuse	125V 20A	Protect the AC main power primary side from an overcurrent.	Japan
		AC main power primary side fuse	Normal fuse	240V 10A	Protect the AC main power primary side from an overcurrent.	200V series
8	F1	DC power primary side fuse	Normal fuse	250V 6.3A	Protect the DC power primary side from an overcurrent.	200V series
9	F2	DC main power + 24V	Normal fuse	125V 6.3A	Overcurrent protection of the LSU, the OPC drum motor, the RADF, the finisher, the PCU MAIN PWB, the paper feed/transport section motors	100V series
		DC main power + 24V	Normal fuse	250V 6.3A		200V series
10	F3	DC main power + 24V	Normal fuse	125V 4.0A	Overcurrent protection of the PCU SUB PWB, the transfer belt section motor, the fusing motor, the developing motor (color), the CD power PWB, and the high voltage (TC) PWB	100V series
		DC main power + 24V	Normal fuse	250V 6.3A		200V series
11	F4	DC main power + 24V	Normal fuse	125V 4.0A	Overcurrent protection of the developing motor (black), the high voltage (MC, DV) PWB, the LCC, the scanner motor, the operation PWB, the ADU, and the printer controller	100V series
		DC main power + 24V	Normal fuse	250V 6.3A		200V series
12		Scanner lamp temperature fuse	Temperature fuse	104°C 250V 10A	Cuts conduction to the scanner lamp when the temperature rises abnormally.	

(10) Power source

(AR-C150/C250)



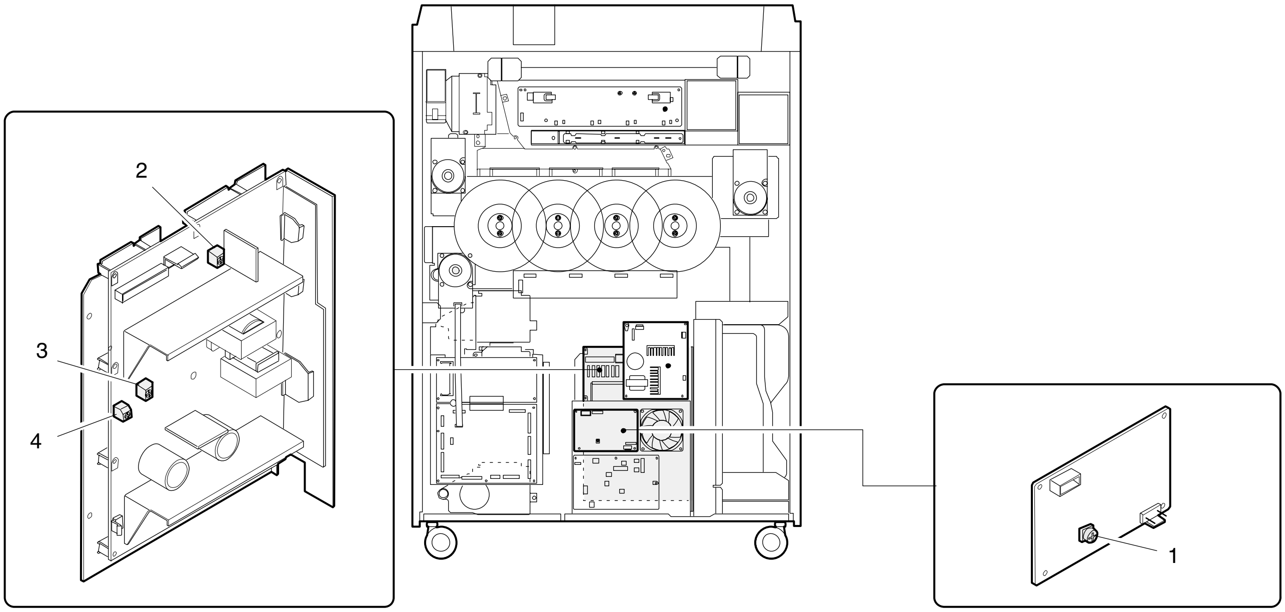
(AR-C160/C270)



No.	Parts			Note
	Name	Function/Operation	Spec	
1	CCD power PWB	Outputs the CCD PWB power.		
2	High voltage power PWB (TC)	Generates the transfer voltage.		
3	Fusing control PWB (AC sub PWB)	Interfaces the heater lamp drive control, the sensor, and the detector signals.		
4	DC main power PWB	Generates a voltage used by the other unit than the operation unit.		
5	Dc sub power PWB (AR-C150/C250) Power control PWB (AR-C160/C270)	Generates a voltage for the operation unit (AR-C150/C250) Controls powers of 24V, 5V and 3.3V in the sleep mode, the preheat mode, and the normal mode. (AR-C160/C270)		
6	AC main power PWB	Controls the power (AC power) on the primary side.		
7	High voltage power PB (MC/DV)	Generates the high voltage for the main charger and the developing bias voltage.		

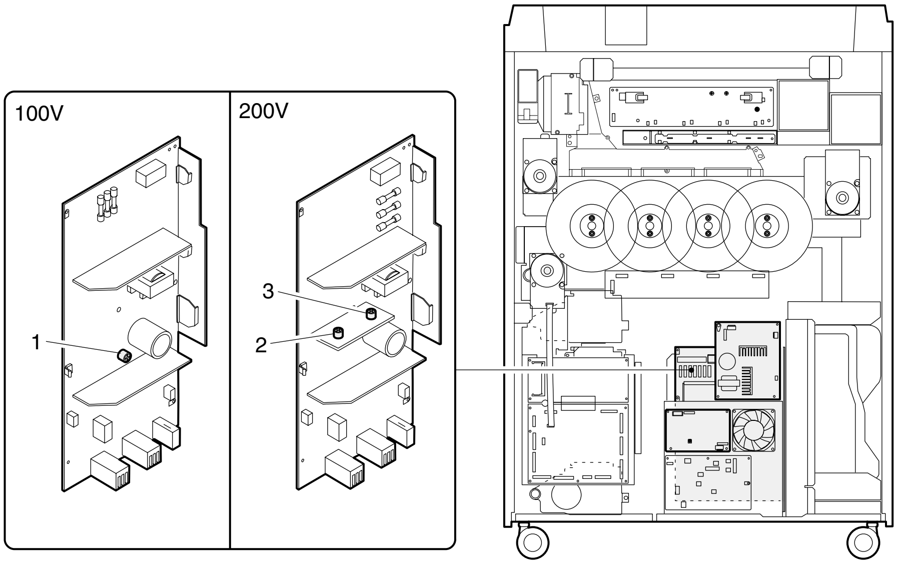
(11) Adjustment volumes

(AR-C150/C250)



No.	Parts			Note
	Code	Name	Function/Operation	
1	VR1	HLV power voltage adjustment volume	Adjusts the HLV voltage.	DC sub power PWB
2	VR704	+3.4V power voltage adjustment volume	Adjusts the +3.4V power voltage.	DC main power PWB
3	VR703	+5V power voltage adjustment volume	Adjusts the +5Vpower voltage.	DC main power PWB
4	VR702	+24V power voltage adjustment volume	Adjusts the +24V power voltage.	DC main power PWB

(AR-C160/C270)



No.	Parts			Note
	Code	Name	Function/Operation	
1	RV2 (100V series)	+3.4V power voltage adjustment volume	Adjusts the +3.4V power voltage.	DC power PWB
2	VR201 (200V series)	+5V power voltage adjustment volume	Adjusts the +5Vpower voltage. (200V series)	DC power PWB
3	VR301 (200V series)	+3.4V power voltage adjustment volume	Adjusts the +3.4V power voltage.	DC power PWB

[6] MACHINE OPERATIONS

1. Operation mode

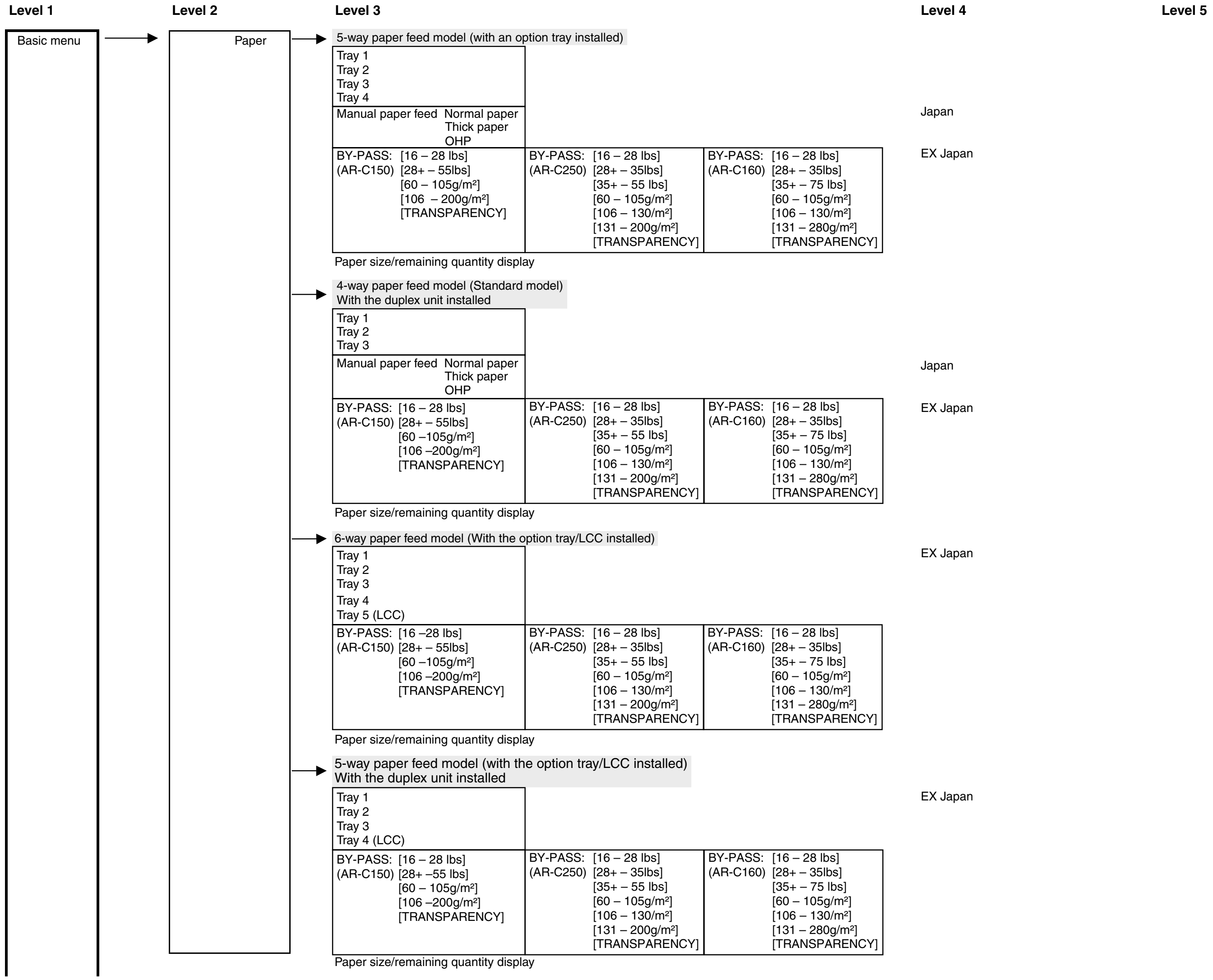
This machine has the following operation modes.

Mode		Contents
Copy mode	Basic operation mode	Used to select paper and set the copy magnification ratio and copy density, etc.
	Special function mode	Used to edit images and adjust color.
	Duplex copy mode	Used to make various setups of duplex copy mode.
	Finishing mode	Used to make various setups related to the sorter.
	Job program mode	Used to preset the copy operation conditions.
	User setup mode	Used to make setup of the specifications according to the user's needs.
	Operation guidance mode	Help menu (Displays the operational descriptions on copying.)
Printer mode		Uses the print server (option) to perform as a printer.
Power save mode	Pre-heat mode	Used to lower the fusing temperature, saving the power consumption.
	Sleep mode	Used to stop the sections except for the control PWB section.
Simulation mode		Used in servicing to set, adjust, and check operations.

2. Operation menu

This machine has the following operation menus.
These operation menus differ depending on installation of options and the configurations.

AR-C150/C250/C160/C270 Operation Menus



5-way paper feed model (with an option tray installed)

Tray 1
Tray 2
Tray 3
Tray 4

Manual paper feed: Normal paper / Thick paper / OHP — Japan

BY-PASS: (AR-C150)	BY-PASS: (AR-C250)	BY-PASS: (AR-C160)
[16 – 28 lbs] [28+ – 55lbs] [60 – 105g/m^2] [106 – 200g/m^2] [TRANSPARENCY]	[16 – 28 lbs] [28+ – 35lbs] [35+ – 55 lbs] [60 – 105g/m^2] [106 – 130/m^2] [131 – 200g/m^2] [TRANSPARENCY]	[16 – 28 lbs] [28+ – 35lbs] [35+ – 75 lbs] [60 – 105g/m^2] [106 – 130/m^2] [131 – 280g/m^2] [TRANSPARENCY]

EX Japan

Paper size/remaining quantity display

4-way paper feed model (Standard model)
With the duplex unit installed

Tray 1
Tray 2
Tray 3

Manual paper feed: Normal paper / Thick paper / OHP — Japan

BY-PASS: (AR-C150)	BY-PASS: (AR-C250)	BY-PASS: (AR-C160)
[16 – 28 lbs] [28+ – 55lbs] [60 –105g/m^2] [106 –200g/m^2] [TRANSPARENCY]	[16 – 28 lbs] [28+ – 35lbs] [35+ – 55 lbs] [60 – 105g/m^2] [106 – 130/m^2] [131 – 200g/m^2] [TRANSPARENCY]	[16 – 28 lbs] [28+ – 35lbs] [35+ – 75 lbs] [60 – 105g/m^2] [106 – 130/m^2] [131 – 280g/m^2] [TRANSPARENCY]

EX Japan

Paper size/remaining quantity display

6-way paper feed model (With the option tray/LCC installed) — EX Japan

Tray 1
Tray 2
Tray 3
Tray 4
Tray 5 (LCC)

BY-PASS: (AR-C150)	BY-PASS: (AR-C250)	BY-PASS: (AR-C160)
[16 –28 lbs] [28+ – 55lbs] [60 –105g/m^2] [106 –200g/m^2] [TRANSPARENCY]	[16 – 28 lbs] [28+ – 35lbs] [35+ – 55 lbs] [60 – 105g/m^2] [106 – 130/m^2] [131 – 200g/m^2] [TRANSPARENCY]	[16 – 28 lbs] [28+ – 35lbs] [35+ – 75 lbs] [60 – 105g/m^2] [106 – 130/m^2] [131 – 280g/m^2] [TRANSPARENCY]

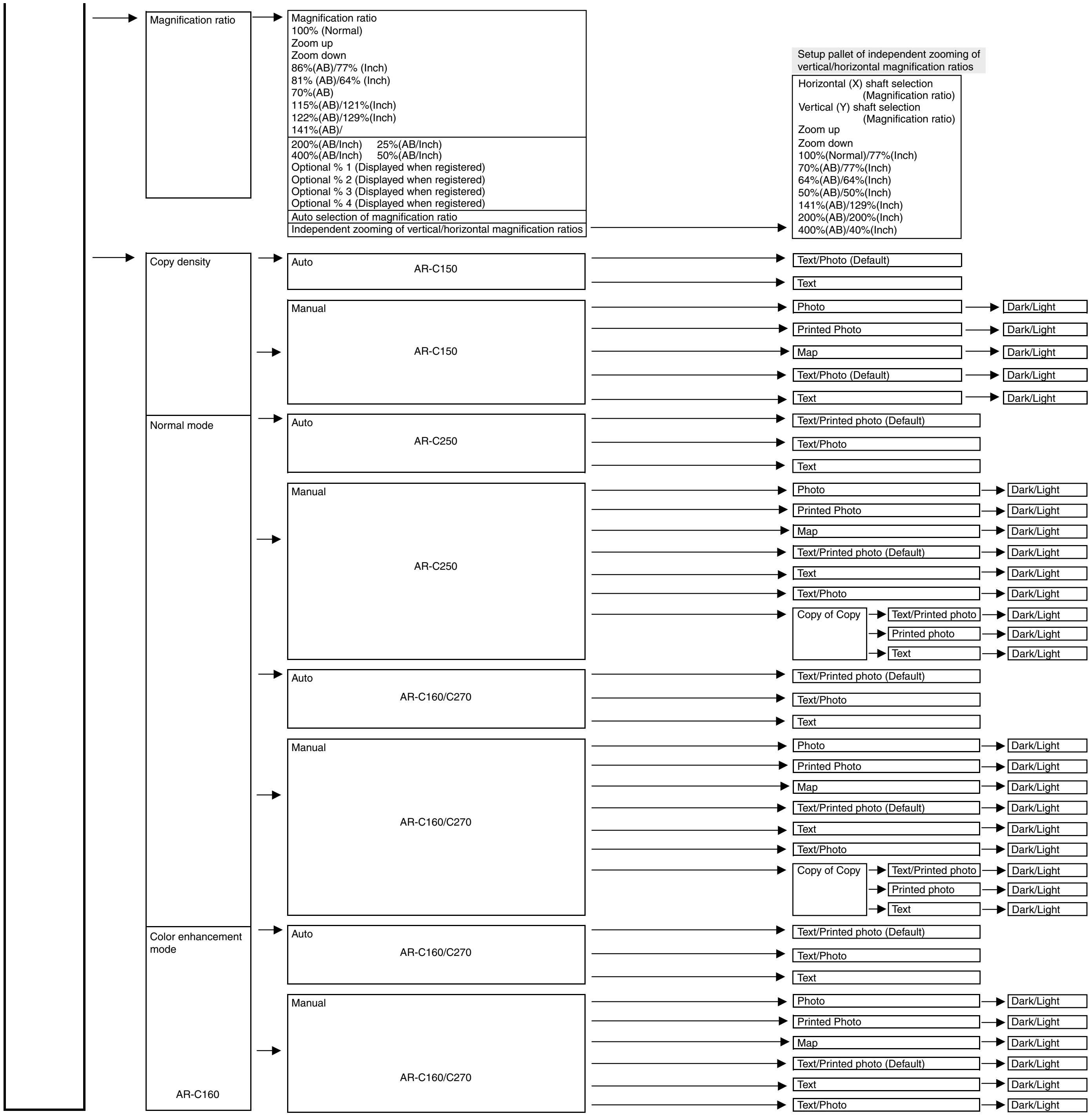
Paper size/remaining quantity display

5-way paper feed model (with the option tray/LCC installed)
With the duplex unit installed — EX Japan

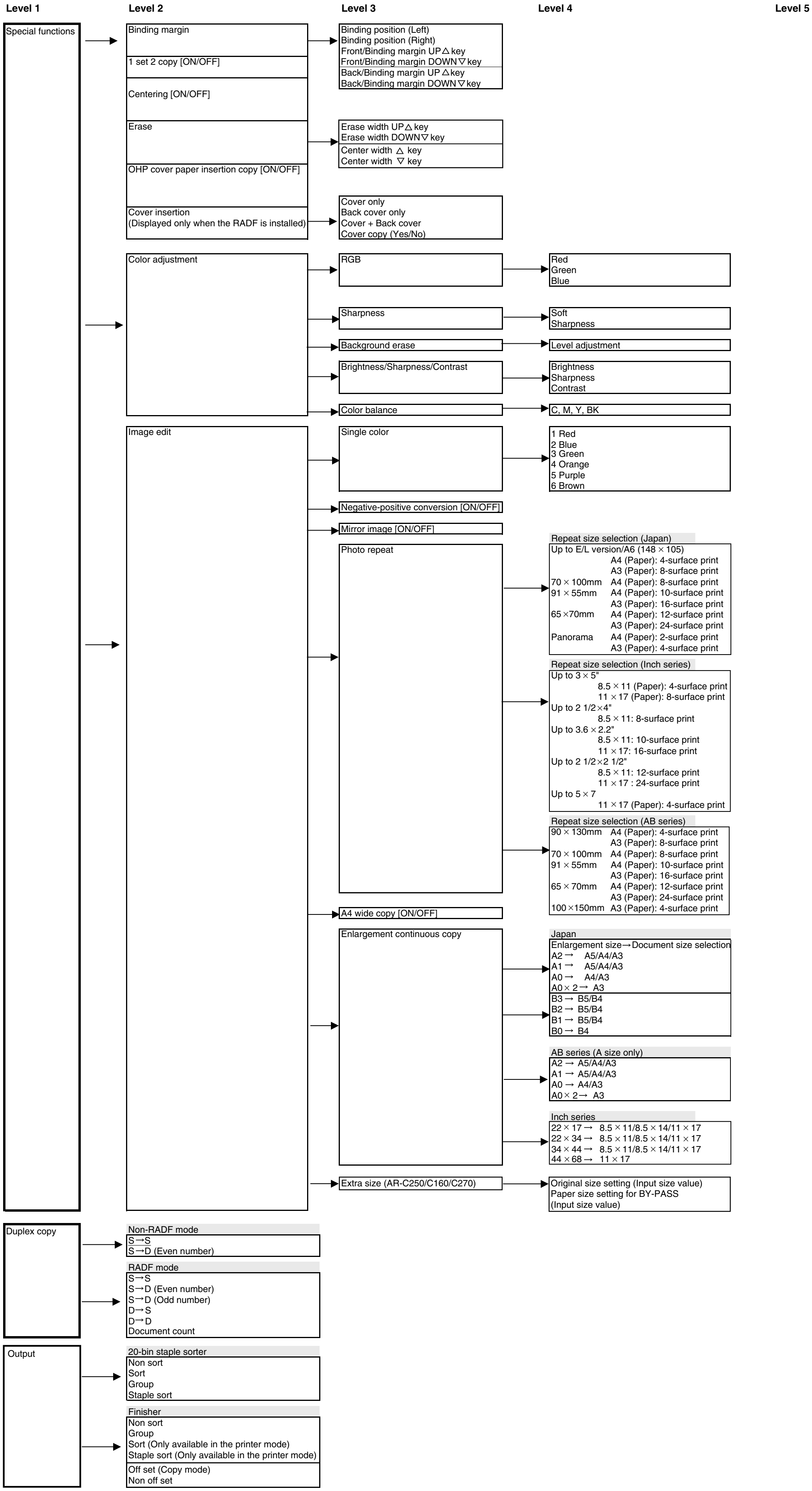
Tray 1
Tray 2
Tray 3
Tray 4 (LCC)

BY-PASS: (AR-C150)	BY-PASS: (AR-C250)	BY-PASS: (AR-C160)
[16 – 28 lbs] [28+ –55 lbs] [60 – 105g/m^2] [106 –200g/m^2] [TRANSPARENCY]	[16 – 28 lbs] [28+ – 35lbs] [35+ – 55 lbs] [60 – 105g/m^2] [106 – 130/m^2] [131 – 200g/m^2] [TRANSPARENCY]	[16 – 28 lbs] [28+ – 35lbs] [35+ – 75 lbs] [60 – 105g/m^2] [106 – 130/m^2] [131 – 280g/m^2] [TRANSPARENCY]

Paper size/remaining quantity display



- Magnification ratio
  - Magnification ratio
    - 100% (Normal)
    - Zoom up
    - Zoom down
    - 86%(AB)/77% (Inch)
    - 81% (AB)/64% (Inch)
    - 70%(AB)
    - 115%(AB)/121%(Inch)
    - 122%(AB)/129%(Inch)
    - 141%(AB)/
  - 200%(AB/Inch) 25%(AB/Inch)
  - 400%(AB/Inch) 50%(AB/Inch)
  - Optional % 1 (Displayed when registered)
  - Optional % 2 (Displayed when registered)
  - Optional % 3 (Displayed when registered)
  - Optional % 4 (Displayed when registered)
  - Auto selection of magnification ratio
  - Independent zooming of vertical/horizontal magnification ratios
    - Setup pallet of independent zooming of vertical/horizontal magnification ratios
      - Horizontal (X) shaft selection (Magnification ratio)
      - Vertical (Y) shaft selection (Magnification ratio)
      - Zoom up
      - Zoom down
      - 100%(Normal)/77%(Inch)
      - 70%(AB)/77%(Inch)
      - 64%(AB)/64%(Inch)
      - 50%(AB)/50%(Inch)
      - 141%(AB)/129%(Inch)
      - 200%(AB)/200%(Inch)
      - 400%(AB)/40%(Inch)
- Copy density
  - Auto AR-C150
    - Text/Photo (Default)
    - Text
  - Manual AR-C150
    - Photo → Dark/Light
    - Printed Photo → Dark/Light
    - Map → Dark/Light
    - Text/Photo (Default) → Dark/Light
    - Text → Dark/Light
- Normal mode
  - Auto AR-C250
    - Text/Printed photo (Default)
    - Text/Photo
    - Text
  - Manual AR-C250
    - Photo → Dark/Light
    - Printed Photo → Dark/Light
    - Map → Dark/Light
    - Text/Printed photo (Default) → Dark/Light
    - Text → Dark/Light
    - Text/Photo → Dark/Light
    - Copy of Copy
      - Text/Printed photo → Dark/Light
      - Printed photo → Dark/Light
      - Text → Dark/Light
  - Auto AR-C160/C270
    - Text/Printed photo (Default)
    - Text/Photo
    - Text
  - Manual AR-C160/C270
    - Photo → Dark/Light
    - Printed Photo → Dark/Light
    - Map → Dark/Light
    - Text/Printed photo (Default) → Dark/Light
    - Text → Dark/Light
    - Text/Photo → Dark/Light
    - Copy of Copy
      - Text/Printed photo → Dark/Light
      - Printed photo → Dark/Light
      - Text → Dark/Light
- Color enhancement mode AR-C160
  - Auto AR-C160/C270
    - Text/Printed photo (Default)
    - Text/Photo
    - Text
  - Manual AR-C160/C270
    - Photo → Dark/Light
    - Printed Photo → Dark/Light
    - Map → Dark/Light
    - Text/Printed photo (Default) → Dark/Light
    - Text → Dark/Light
    - Text/Photo → Dark/Light



Level 1 / **Level 2** / **Level 3** / **Level 4** / **Level 5**

- Special functions
  - Binding margin
    - Binding position (Left)
    - Binding position (Right)
    - Front/Binding margin UP △ key
    - Front/Binding margin DOWN ▽ key
    - Back/Binding margin UP △ key
    - Back/Binding margin DOWN ▽ key
  - 1 set 2 copy [ON/OFF]
  - Centering [ON/OFF]
  - Erase
    - Erase width UP △ key
    - Erase width DOWN ▽ key
    - Center width △ key
    - Center width ▽ key
  - OHP cover paper insertion copy [ON/OFF]
  - Cover insertion (Displayed only when the RADF is installed)
    - Cover only
    - Back cover only
    - Cover + Back cover
    - Cover copy (Yes/No)
  - Color adjustment
    - RGB
      - Red
      - Green
      - Blue
    - Sharpness
      - Soft
      - Sharpness
    - Background erase
      - Level adjustment
    - Brightness/Sharpness/Contrast
      - Brightness
      - Sharpness
      - Contrast
    - Color balance
      - C, M, Y, BK
  - Image edit
    - Single color
      - 1 Red
      - 2 Blue
      - 3 Green
      - 4 Orange
      - 5 Purple
      - 6 Brown
    - Negative-positive conversion [ON/OFF]
    - Mirror image [ON/OFF]
    - Photo repeat
      - Repeat size selection (Japan)
        - Up to E/L version/A6 (148 × 105)
          - A4 (Paper): 4-surface print
          - A3 (Paper): 8-surface print
        - 70 × 100mm A4 (Paper): 8-surface print
        - 91 × 55mm A4 (Paper): 10-surface print
          - A3 (Paper): 16-surface print
        - 65 ×70mm A4 (Paper): 12-surface print
          - A3 (Paper): 24-surface print
        - Panorama A4 (Paper): 2-surface print
          - A3 (Paper): 4-surface print
      - Repeat size selection (Inch series)
        - Up to 3 × 5"
          - 8.5 × 11 (Paper): 4-surface print
          - 11 × 17 (Paper): 8-surface print
        - Up to 2 1/2×4"
          - 8.5 × 11: 8-surface print
        - Up to 3.6 × 2.2"
          - 8.5 × 11: 10-surface print
          - 11 × 17: 16-surface print
        - Up to 2 1/2×2 1/2"
          - 8.5 × 11: 12-surface print
          - 11 × 17 : 24-surface print
        - Up to 5 × 7
          - 11 × 17 (Paper): 4-surface print
      - Repeat size selection (AB series)
        - 90 × 130mm A4 (Paper): 4-surface print
          - A3 (Paper): 8-surface print
        - 70 × 100mm A4 (Paper): 8-surface print
        - 91 × 55mm A4 (Paper): 10-surface print
          - A3 (Paper): 16-surface print
        - 65 × 70mm A4 (Paper): 12-surface print
          - A3 (Paper): 24-surface print
        - 100 ×150mm A3 (Paper): 4-surface print
    - A4 wide copy [ON/OFF]
    - Enlargement continuous copy
      - Japan
        - Enlargement size→Document size selection
        - A2 → A5/A4/A3
        - A1 → A5/A4/A3
        - A0 → A4/A3
        - A0 × 2 → A3
        - B3 → B5/B4
        - B2 → B5/B4
        - B1 → B5/B4
        - B0 → B4
      - AB series (A size only)
        - A2 → A5/A4/A3
        - A1 → A5/A4/A3
        - A0 → A4/A3
        - A0 × 2 → A3
      - Inch series
        - 22 × 17 → 8.5 × 11/8.5 × 14/11 × 17
        - 22 × 34 → 8.5 × 11/8.5 × 14/11 × 17
        - 34 × 44 → 8.5 × 11/8.5 × 14/11 × 17
        - 44 × 68 → 11 × 17
    - Extra size (AR-C250/C160/C270)
      - Original size setting (Input size value)
      - Paper size setting for BY-PASS (Input size value)
- Duplex copy
  - Non-RADF mode
    - S→S
    - S→D (Even number)
  - RADF mode
    - S→S
    - S→D (Even number)
    - S→D (Odd number)
    - D→S
    - D→D
    - Document count
- Output
  - 20-bin staple sorter
    - Non sort
    - Sort
    - Group
    - Staple sort
  - Finisher
    - Non sort
    - Group
    - Sort (Only available in the printer mode)
    - Staple sort (Only available in the printer mode)
    - Off set (Copy mode)
    - Non off set

Level 1 | **Level 2** | **Level 3** | **Level 4** | **Level 5**

- Job program
  - Program 1
  - Program 2
  - Program 3
  - Program 4
  - Program 5
  - Program 6
  - Program 7
  - Program 8
  - Program 9
  - Registration/Erase
    - Program selection
      - Program 1
      - Program 2
      - Program 3
      - Program 4
      - Program 5
      - Program 6
      - Program 7
      - Program 8
      - Program 9
- User setup
  - Operation display brightness adjustment
  - Key operator program
    - Dept. management
      - Dept counter setup
      - Copy quantity total
      - Amount total
      - Total quantity/amount erase
      - Dept number setup
      - Copy unit price setup
      - Limitation of copy quantity
      - Warning for erroneous input of dept number
    - Function setup
      - Key operator code change
      - Auto copy mode copy density adjustment
      - Toner save mode setup (Black/White)
        - Displayed in Japan/ Outside UK
      - Program magnification ratio setup
      - Copy quantity upper limit setup
      - Binding margin standard value setup
      - Edge erase width standard value setup
      - Copy mode standard state setup
      - Color balance
        - Color balance test copy
      - Paper feed tray paper size setup
      - Operation inhibition mode setup
      - Stream feeding mode setup
        - Displayed only when the RADF is installed
      - Staple sorter bin paper exit quantity limitation cancel
        - Displayed only when the sorter is installed
      - Transfer belt position setup (Color/B & W)
      - Input size value (AR-C250/C160)
    - Timer setup
      - Sleep mode setup
      - Auto clear time setup
      - Pre-heat mode setup
      - Message display time setup
    - User auto calibration
      - Use SIM 26-53 to set Enable/Disable of this function.
    - Inhibition setup
      - Key touch alarm inhibition
      - Paper auto select inhibition
      - Tray auto select inhibition
      - Manual feed tray inhibition in duplex copy
        - Displayed only when the ADU is installed
      - Registered copy condition rewrite inhibition
      - Document feed unit use inhibition
        - Displayed only when the RADF is installed
      - Duplex copy inhibition
        - Displayed only when the ADU is installed
      - Staple inhibition
        - Displayed only when the sorter is installed
      - Cover mode inhibition
        - Displayed only when the RADF is installed
      - Copy inhibition in warning of size/direction
        - Only in Japan
      - PC Modem access inhibition
      - Sleep mode inhibition
      - Black/white copy pre-scan inhibition
      - Color copy inhibition
        - No display
    - Total copy quantity display
      - Copy (Color)
      - Copy (Black/white)
      - Duplex
      - Document feed unit
      - Stapler
      - Self print (Color)
      - Self print (Black/white)
      - Printer (Color)
      - Printer (Black/white)
    - Program list print
- Operation guidance
  - Duplex copy
    - Displayed only when the ADU is installed.
  - Output
    - Displayed only when the sorter or finisher is installed.
  - Document feed unit
    - Displayed only when the RADF is installed.
  - Paper
  - Magnification ratio
  - Program
  - Interruption
  - Binding margin
  - 1 set 2 copy
  - Centering
  - Cover insertion
    - Displayed only when the RADF is installed.
  - OHP cover insertion
  - Color adjustment
  - Single color
  - Negative/Positive
  - Mirror image
  - Photo repeat
  - A3 wide copy
  - Enlargement continuous copy
  - Display contrast
  - Extra size (AR-C250/C160/C270)
- Toner supply
  - (The menu display and "Operation Guidance"/"Toner supply" key are displayed only when toner concentration is decreased.)
- Toner empty
  - (When the information key is pressed when in toner empty, the toner supply guidance is displayed.)
- Waste toner full
  - (When the information key is pressed when in waste toner full, the waste toner collection paper replacement guidance is displayed.)
- Printer mode
  - OFFLINE
  - ONLINE
    - Printer setup

3. Pre-heat mode and sleep mode operations

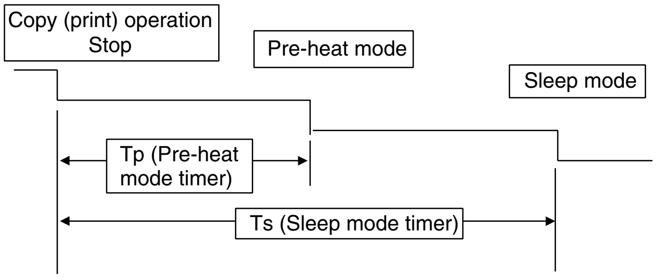
A. Operation timing

This machine has a pre-heat mode and a sleep mode to save the power consumption when copying (printing) is not performed.

The shift timing to the pre-heat mode and the sleep mode can be set with the user program with the non-operating state as the start point.

The timing of the two modes can be separately set. It is possible to shift from the normal mode directly to the sleep mode without passing through the pre-heat mode.

Operation timing in the pre-heat mode and the sleep mode



Tp and Ts are set by the user program.

Timer	Set time
TP	10 - 240min
Ts	10 - 240min

(Pre-heat mode cancel conditions)

In the following cases, the pre-heat mode is canceled.

Control section	Phenomenon	NOTE
Operation section	Key input (Including Key ON)	
Auditor section	Card insertion (Only in the card counter mode)	(Japan only)
	Coin insertion (Only in the coin vendor mode)	(Japan only)
Original size sensor section	Original size change (Including Original Empty → Presence, Presence → Empty)	
RADF section	RADF original size change (Including Original Empty → Presence, Presence → Empty)	
Paper tray section		
Finishing		
Copy	Copying	
Self print		
Printer control	Printer operation	
Scanner (reading)	Scanner operation	

(Sleep mode cancel condition)

In the following cases, the sleep mode is canceled.

Copy	Copying	NOTE
Self print		
Printer control	Printer operation	
Scanner (reading)	Scanner operation	
When the mode key is ON		

(Sleep mode shift timing extending condition)

When the non-operation of copying and printing continues and the following case occurs within 10 min of entering the sleep mode, set the sleep mode timer to 10 min again, and extend the shift timing to the sleep mode.

Control section	Phenomenon	NOTE
Operation section	Key input other than 10-key (Including Key ON)	
Auditor section	Card insertion (Only in the card counter mode) (Japan only)	
	Coin insertion (Only in the coin vendor mode) (Japan only)	
Original size detection (Original size sensor section)	Original size change (Including Original Empty → Presence, Presence → Empty)	
RADF section	RADF original size change (Including Original Empty → Presence, Presence → Empty)	
Paper tray section	Paper tray attachment/ detachment detection, Paper tray lift operation	
Finishing (sorter)	Staple execution, (Front take-up execution)	
Copy	Copying	
Self print	Self printing	
Printer control	Printer operation	
Scanner (reading)	Scanner operation	

B. Pre-heat mode and sleep mode operations

(1) Control unit operations in the pre-heat mode and the sleep mode

a. Operation (operation panel) section

Mode	Operation		NOTE
Sleep	LCD display	Does not display.	
	LED lights up.	Printer/Copy : Light up. Start, interruption, data, online: Does not light up.	
	Key	Printer/Copy key: Valid Other keys: Invalid	
	Original detection	Original size sensor: Does not operate. Original cover open/close detection: Does not operate	
	Card reader	Does not operate.	Japan only
Pre-heat mode	All load operations possible		
Normal			

b.PCU PWB

Mode	Operates.	NOTE
Sleep	Does not operate.	
Preheat	Refer to "d. Signals controlled by the PCU PWB in the pre-heat mode".	
Normal	Operates.	

c.ICU PWB

Mode	Operates.	NOTE
Sleep	Does not operate.	
Low power		
Normal	Operates.	

(Signals controlled by the PCU PWB in the pre-heat mode)

Section	Signal name	Content	Operation in the pre-heat mode
Manual paper feed	MPWS	Manual feed width detection	Does not operate.
	MPLD1	Manual feed length detection	
	MPLD2	Manual feed length detection	
	MTOP1	Manual feed tray pull-out detection	
	MTOP2	Manual feed tray pull-out detection	
	MPED	Manual feed paper empty detection	
Paper feed tray	C*SS1	Paper size detection	Does not operate.
	C*SS2	Paper size detection	
	C*SS3	Paper size detection	
	C*SS4	Paper size detection	
	PED*	Paper empty detection	
	LUD*	Paper upper limit detection	
	C*PD1	Paper remaining quantity detection 1	
	LUM_ENB*	Paper tray lift-up motor	
Paper transport	PFD*	Cassette paper feed detection	Does not operate.
	PPD1	Paper detection in front of RR roller	
	POD	Machine paper exit detection	
	PODF	Finisher paper exit detection	
	PFM	Paper feed motor	
	TRC	Transport clutch	
	MPFS	Manual paper feed solenoid	
	MPFC	Manual paper feed clutch	
	CPFS*	Cassette paper feed solenoid	
	CPFC*	Cassette paper feed clutch	
	RRM_START	RR motor	
Developing	PRD_AN?	Toner concentration detection	Does not operate.
Fusing	HLPR	HL power relay	ON
Waste toner	TBBOX	Waste toner bottle installation detection	Does not operate.
	TFD	Waste toner full detection	
Image process	DMENB	All OPC drum drive motor	Does not operate.
	DVKM	Developing motor (Black)	
	DVCM	Developing motor (Color)	
	HPCH	Toner hopper installation detection	
	PRD_ANRTH	Image process temperature detection	
Coin vendor (Japan only)	CV_COPY	B/W copy allow signal	❍ (No Money insertion → Detection ; pre-heat mode canceled)
	CV_CLCOPY	Color copy allow signal	
	CV_COUNT	Count signal	Does not operate.
	CV_START	Copy start signal	
	CV_COLOR	Color signal	
	CV_SIZE0	Size signal 0	
	CV_SIZE1	Size signal 1	
	CV_SIZE2	Size signal 2	
	CV_SIZE3	Size signal 3	
Scanner (reading)	MHPS	Mirror home position detection	Does not operate.
	SMENB	Scanner (writing) motor	
Copy lamp	CL	Scanner lamp	Does not operate.
Fan	CFM	Scanner (reading) cooling fan	Does not operate.
	VFPWM	Fusing exhaust/cooling fan	Operates. (Only the fusing exhaust fan is operable.)
	LSUPWM	LSU cooling fan (LSUFM)	Does not operate.
	OZFM	Ozone exhaust fan	
Others	DSWF	Front door open detection	Does not operate.
	DDSW	Paper exit door open detection	
	RDSWU	Paper fed upper door open detection	
	RDSWD	Paper feed lower door open detection	
	PSPR	Main power relay	OFF
	MCLKA	Paper tray lift motor/Toner motor	Does not operate.
	MCLKB		
	DHPR	Dehumidifier heater power relay	Operates.

d. Communication in the pre-heat mode

Section	Signal name	Content	Operation in the pre-heat mode
PCU SUB PWB	TXD_SUB	PCU SUB data send	Operates.
	RXD_SUB	PCU SUB data receive	
	BELTCH	Transfer belt pull-out detection	
ADU	TXD_ADU	ADU data send	Does not operate.
	RXD_ADU	ADU data receive	
	RES_ADU	ADU reset	
	ADU_CH	ADU pull-out detection	
RADF	TXD_RADF	RADF data send	Operates.
	RXD_RADF	RADF data receive	
	RES_RADF	RADF reset	
Sorter	RES_SOT	SOT reset	Operates.
LCC	TXD_LCC	LCC data send	Does not operate.
	RXD_LCC	LCC data receive	
	RES_LCC	LCC reset	
RIC I/F	TXD_RIC	RIC data send	Does not operate.
	RXD_RIC	RIC data receive	
	DTR_RIC	Machine power ON signal	
	DSR_RIC	RIC power ON signal	
ICU PWB	ICU_RXD	ICU data receive	Does not operate.
	ICU_TXD	ICU data send	
	ICU_RES	ICU reset signal	
Operation unit	OPE_TXD	Data send to OPE	Operates.
	OPE_RXD	Data receive from OPE	
	OPE_RES	OPE reset signal	

(2) Fusing section operation in the pre-heat mode and the sleep mode

(AR-C100/C150)

Mode			Control temperature									NOTE
			U.S.A	Canada	Inch	Japan	AB_B	Europe	U.K	Aus.	AB_A	
Ready condition	Ready condition control temperature (HL1)	Upper heat roller	187	187	187	177	177	187	187	187	187	
	Ready condition control temperature (HL2)	Lower heat roller	142	142	142	132	132	142	142	142	142	
Copy/Print mode	Normal mode control temperature (HL1)	Upper heat roller	180	180	180	170	170	180	180	180	180	
	Normal mode control temperature (HL2)	Lower heat roller	135	135	135	125	125	135	135	135	135	
	Thick paper mode control temperature (HL1)	Upper heat roller	200	200	200	200	200	200	200	200	200	AR-C150 only
	Thick paper mode control temperature (HL2)	Lower heat roller	155	155	155	155	155	155	155	155	155	AR-C150 only
	OHP mode control temperature (HL1)	Upper heat roller	180	180	180	180	180	180	180	180	180	AR-C150 only
	OHP mode control temperature (HL2)	Lower heat roller	175	175	175	175	175	175	175	175	175	AR-C150 only
Pre-heat mode	Energy saving mode control temperature (HL1)	Upper heat roller	140	140	140	140 (137)	140	140	140	140	140	( ) AR-C100
	Control temperature when resetting from pre-heat to B/W (HL1)	Upper heat roller	155	155	155	155 (152)	155	155	155	155	155	( ) AR-C100
Sleep mode	HL1	Upper heat roller	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	
	HL2	Lower heat roller	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	

(AR-C250/C160/C270)

Mode			Control temperature									NOTE
			U.S.A	Canada	Inch	Japan	AB_B	Europe	U.K	Aus.	AB_A	
Ready condition	Ready condition control temperature (HL1)	Upper heat roller	177	177	177	177	177	177	177	177	177	
	Ready condition control temperature (HL2)	Lower heat roller	132	132	132	140 (132)	140 (132)	132	132	132	132	( ) AR-C160/ C270
Copy/Print mode	Normal mode control temperature (HL1)	Upper heat roller	170	170	170	170	170	170	170	170	170	
	Normal mode control temperature (HL2)	Lower heat roller	125	125	125	140 (125)	140 (125)	125	125	125	125	( ) AR-C160/ C270
	Thick paper mode 1 control temperature (HL1)	Upper heat roller	185	185	185	185	185	185	185	185	185	
	Thick paper mode 1 control temperature (HL2)	Lower heat roller	155	155	155	155	155	155	155	155	155	
	Thick paper mode 2 control temperature (HL1)	Upper heat roller	200	200	200	200	200	200	200	200	200	
	Thick paper mode 2 control temperature (HL2)	Lower heat roller	155	155	155	155	155	155	155	155	155	
	OHP mode control temperature (HL1)	Upper heat roller	180	180	180	180	180	180	180	180	180	
	OHP mode control temperature (HL2)	Lower heat roller	175	175	175	175	175	175	175	175	175	
Pre-heat mode	Energy saving mode control temperature (HL1)	Upper heat roller	136 (146)	136 (146)	136 (146)	136 (146)	136 (146)	136 (146)	136 (146)	136 (146)	136 (146)	( ) AR-C160/ C270
	Control temperature when resetting from pre-heat to B/W (HL1)	Upper heat roller	148 (158)	148 (158)	148 (158)	148 (158)	148 (158)	148 (158)	148 (158)	148 (158)	148 (158)	( ) AR-C160/ C270
Sleep mode	HL1	Upper heat roller	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	
	HL2	Lower heat roller	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	

4. Consumable parts life and machine operation

The relationship between the consumable parts life and the machine operation is as shown in the table below.

Consumable parts		Condition	Operation	Message
Toner	K	Low toner	About 30-sheet copy (print) allowed	Copy allowed/ Supply toner
	Y,M,C	Low toner	About 30-sheet copy (print) allowed	Copy allowed/ Supply toner
	K	Toner empty	Copying (printing) is stopped after completion of the half-way copy (print). All copy (print) including color copy inhibited.	Toner empty
	Y,M,C	Toner empty	Copying (printing) is stopped after completion of the half-way copy (print). (Monochrome copy is allowed.)	Toner empty
Developer	K,Y,M,C	Life	Copy (print) allowed	Maintenance required
OPC drum	K,Y,M,C	Life	Copy (print) allowed	Maintenance required
Waste toner bottle	OPC drum section	Life	Copying (printing) is stopped after completion of the half-way copy (print).	Replace toner collection bottle
	Transfer section	Life	Copying (printing) is stopped after completion of the half-way copy (print).	Transfer unit toner collection bottle full
Fusing oil		Oil empty	Copy (print) is immediately stopped.	H6 trouble (Fusing oil empty)

[7] SETTING AND ADJUSTMENTS

1. Adjustment/setup items list

Each adjustment item in the adjustment item list is indicated with its JOB number. Perform the adjustment procedures in the sequence of Job numbers from the smallest to the greatest.

However, there is no need to perform all the adjustment items. Perform only the necessary adjustments according to the need. Unnecessary adjustments can be omitted. Even in this case, however, the sequence from the smallest to the greatest JOB number must be observed. If the above precaution should be neglected, the adjustment would not complete normally or a trouble may occur.

JOB No	ADJUSTMENT ITEM			SIMULATION
ADJ M1	DV doctor gap adjustment			
ADJ M2	DV roller main pole position adjustment			
ADJ M3	Toner concentration control reference level setting			25-2/44-27
ADJ M4	High voltage adjustment	ADJ 1	Main charger grid voltage adjustment	8-2
		ADJ 2	DV bias voltage adjustment	8-1
		ADJ 3	Transfer voltage adjustment	8-6 (Old) 44-30 (New)
ADJ M5	Paper skew adjustment			44-2
ADJ M6	Image density sensor adjustment	ADJ 1	Image density sensor calibration	44-13
		ADJ 2	Image density sensor sensing position adjustment	44-23
ADJ M7	Image skew adjustment (Scanner (Writing) unit)			64-1
				61-4
ADJ M8	Photoconductor phase adjustment			44-20 (Old) 44-31 (New)
ADJ M9A ∗ 1	Image registration adjustment (Auto adjustment) (AR-C250/C160/C270) (New version of AR-C150)	Main scanning direction copy magnification ratio adjustment (Scanner (Writing) unit) Main scanning direction image registration adjustment (Scanner (Writing) unit) Sub scanning direction color image resist adjustment (Scanner (Writing) unit)		50-22
ADJ M9 ∗ 2	Main scanning direction copy magnification ratio adjustment (Manual adjustment) (Scanner (Writing) unit) Main scanning direction image registration adjustment (Manual adjustment) (Scanner (Writing) unit)	ADJ 1	Main scanning direction copy magnification ratio adjustment (Scanner (Writing) unit) (Black)	50-10
		ADJ 2	Main scanning direction color image resist adjustment (Scanner (Writing) unit) (Color) Main scanning direction copy magnification ratio adjustment (Scanner (Writing) unit) (Color)	50-20
ADJ M10 ∗ 3	Sub scanning direction color image resist adjustment (Manual adjustment) (Scanner (Writing) unit) (Color)			50-21
ADJ M11	Image distortion adjustment	ADJ 1	Scanner (Reading) unit parallelism adjustment	
		ADJ 2	Image distortion adjustment (Sub scanning direction)	
		ADJ 3	Image distortion adjustment (Main scanning direction)	
ADJ M12	Image focus (Main scanning direction copy magnification ratio) adjustment (CCD position adjustment)			48-1
ADJ M13	Sub scanning direction copy magnification ratio adjustment			48-1
ADJ M14	Image position adjustment (Main scanning direction) (Print engine)			50-10
ADJ M15	Image position adjustment (Main scanning direction) (Scanner (Writing)			50-12
ADJ M16	Image position, image loss, void area adjustment			50-1/50-2
ADJ M17	Copy quality adjustment	ADJ 1	CCD gamma adjustment (CCD calibration) (Normal document mode) (AR-C150/C160/C250/C270)	63-3 (63-5)
		ADJ 2 ∗ 4	Copy color balance adjustment (Auto)	46-22/24
		ADJ 3 ∗ 5	Copy color balance adjustment (Manual)	46-21
		ADJ 4	Low-density area density adjustment (Normall unnecessary to adjust)	46-1/2
		ADJ 5	Copy color balance adjustment (Copy mode) (Normall unnecessary to adjust)	46-10 to 19
		ADJ 1A	CCD gamma adjustment (CCD calibration) (Copy document mode) (AR-C250/C160/C270) (Normall unnecessary to adjust)	63-9

JOB No	ADJUSTMENT ITEM			SIMULATION
ADJ M17	Copy quality adjustment	ADJ 6	Black toner component image gamma adjustment (Black character and black line reproduction adjustment) (AR-C250/C160/C270) (Normally unnecessary to adjust.)	46-27
		ADJ 7	Copy color balance adjustment (Single color Copy mode) (Normally unnecessary to adjust.) (AR-C250/C160/C270)	46-25
		ADJ 8	Setup of the gamma characteristic in the color copy mode (AR-C250/C160/C270)	26-55
		ADJ 9	Fusing capability setting with heavy paper (AR-C150)	26-55
		ADJ 10	User auto color calibration (Copy color balance, auto density adjustment)	26-53
ADJ M18	Document size sensor adjustment	ADJ 1	Original size sensor detection point adjustment	41-2
		ADJ 2	Original size sensor sensitivity adjustment	41-2
ADJ M19	Waste toner full detection level adjustment			
ADJ M20	Touch panel coordinates setting			65-1
ADJ M21	Transfer belt level adjustment (Transfer belt traveling adjustment)			
ADJ M22	Fusing pressure adjustment			
ADJ M23	Power voltage adjustment (AR-C100/C150/C250/C270)	ADJ 1	3.4 V power voltage adjustment	
		ADJ 2	5.0 V power voltage adjustment	
		ADJ 3	24 V power voltage adjustment	
ADJ M24	Manual feed paper size sensor adjustment			40-2
ADJ M25	OHP sensor adjustment			40-5

∗ 1/∗ 2/∗ 3: ADJ M9A automatically performs the adjustment contents of ADJ M9/ADJ M10. If satisfactory results are obtained by ADJ M9A, there is no need to execute manual adjustments of ADJ M9/ADJ M10.

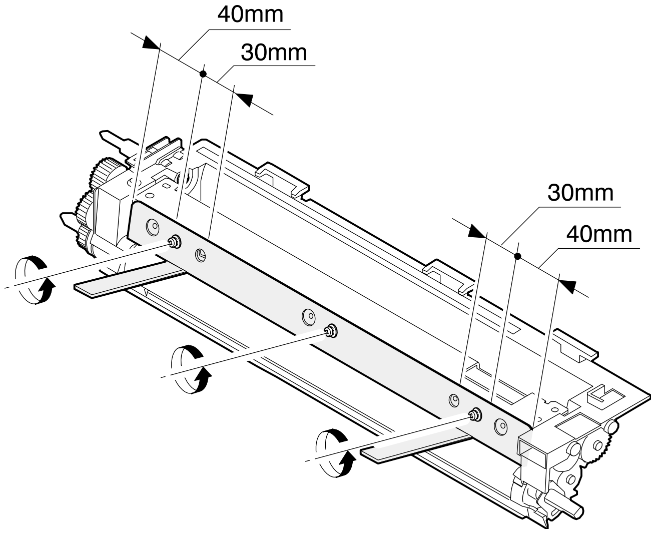
∗ 4/∗ 5: ADJ M17/ADJ 2 automatically perform the adjustment contents of ADJ M17/ADJ 3. If satisfactory results are obtained by ADJ M17/ADJ 2, there is no need to execute manual adjustments of ADJ M17/ADJ 3.

ADJ M1 DV doctor gap adjustment

This adjustment must be performed in the following cases:

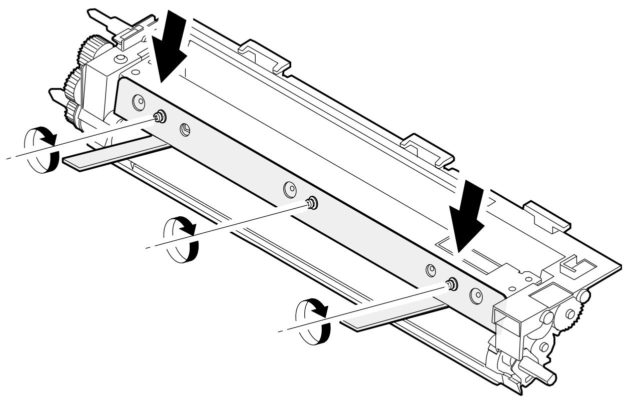
- When the developing unit is disassembled.
- When the print density is low.
- When there is a lot of toner dispersion abnormally.

1) Remove the developing unit from the copier, and remove the developing unit cover and the blade cover.
2) Loosen the DV doctor fixing screw A.
3) Insert a 0.525 thickness gauge at the point of 40mm – 70mm from the DV doctor edge.



4) Push the DV doctor in the arrow direction and tighten the DV doctor fixing screw.
   (Perform the same procedure for the front and the rear frame simultaneously.)
5) Check that the clearance is 0.525 ± 0.03mm at two positions which are 40mm – 70mm from the both sides of the DV doctor.

∗ When inserting the thickness gauge, be careful not to scratch the DV doctor and the MG roller.



ADJ M2 DV roller main pole position adjustment

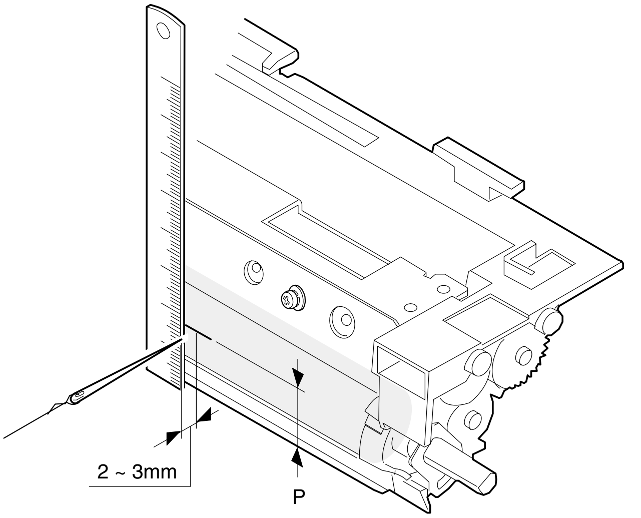
This adjustment must be performed in the following cases:

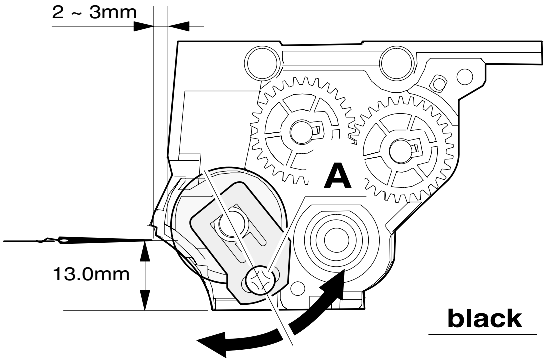
- When the developing unit is disassembled.
- When the print density is low.
- When there is a lot of toner dispersion abnormally.

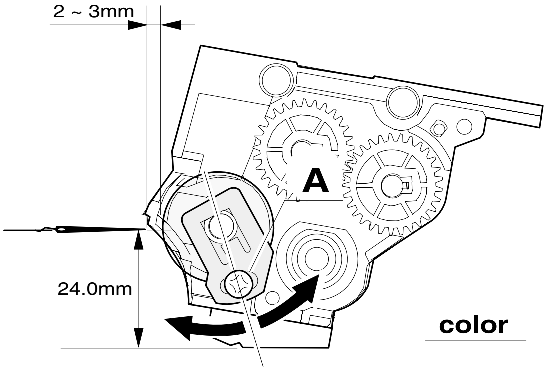
1) Remove the developing unit cover and the blade cover, and place the developing unit on a flat surface.
2) Tie a string to a needle or a pin.
3) Hold the string and put the needle horizontally and move it toward the MG roller. (Do not use a clip which is too big to have a correct position.)
4) With the needle tip at 2 – 3mm from the MG roller surface, mark the point on the surface which is on the extended line of the needle tip. (Do not make contact between the needle tip and the MG roller.)

5) Measure the distance between the marking position and surface P of the developing unit, and check that the black unit is 13mm, color unit 24mm.

If the distance is not as specified above, loosen the fixing screw A of the main pole adjustment plate, and move the adjustment plate in the arrow direction to adjust.





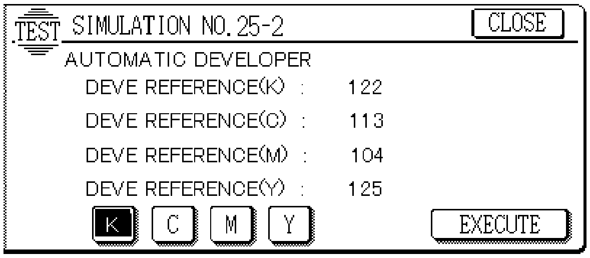


ADJ M3 Toner concentration control reference level setting

This adjustment must be performed in the following case:

- When the developer is replaced.

1) With the front cabinet open, enter the SIM 25-2 mode.



SIMULATION NO.25-2

AUTOMATIC DEVELOPER

DEVE REFERENCE(K) : 122

DEVE REFERENCE(C) : 113

DEVE REFERENCE(M) : 104

DEVE REFERENCE(Y) : 125

2) Close the front cabinet.
3) Select the developing unit to be adjusted.
4) When the [EXECUTE] key is pressed, it is highlighted. The OPC drum drive motor rotates and the toner concentration sensor detects toner concentration and the output value is displayed.

After stirring for 3 min, the average value of toner concentration sensor detection level is set (stored) as the reference toner concentration control value.

NOTE: When the operation is stopped in 3 min, the adjustment result is not registered.
When the [EXECUTE] key is pressed during rotation of the motor, it is stopped and the [EXECUTE] key returns to the normal display.
If "EE-EU" or "EE-EL" is displayed, it means that the reference toner concentration control value is not set normally.
EE-EL: Less than 79 (1.59V)
EE-EU: More than 177 (3.41V)

5) Execute SIM 24-5 to clear the developer counter.
6) Execute SIM 44-27 to reset the half tone correction data (correction conditions) to the default.

NOTE:
1) When replacing the color developer, replace the yellow, Magenta, and Cyan developers at the same time.
If only one developer is replaced, the color balance may be abnormal.
The black developer can be replaced alone.
2) After replacement of developers and the photoconductor, be sure to execute SIM 44-27 to reset the half tone correction data (correction conditions) to the default level.
If the above procedure is ignored, half tone correction may not be performed properly.

ADJ M4 High voltage adjustment

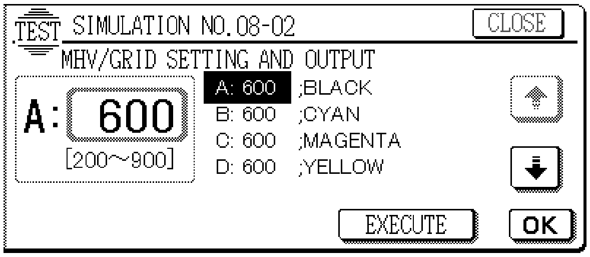
(Note) For adjustment of the output voltage, use internal impedance of 1000Mohm or more and whose effective value can be measured (Recommend: FLUKE87 FLUKE80K-40). Use a high voltage probe.

ADJ 1 Main charger grid voltage adjustment

This adjustment must be performed in the following cases:

- When the high voltage power (MC/DV) PWB is replaced.
- When a U2 trouble occurs.
- When the PCU main PWB is replaced.
- When the EEPROM of the PCU main PWB is replaced.

1) Enter SIM 8-2 mode.
2) Select the color mode to be adjusted with the scroll key and press the [EXECUTE] key.
3) Check the output voltage with the high voltage probe, and adjust the value of each color so that the specification in the table below is satisfied.



SIMULATION NO.08-02

MHV/GRID SETTING AND OUTPUT

A: 600

[200~900]

A: 600 ;BLACK

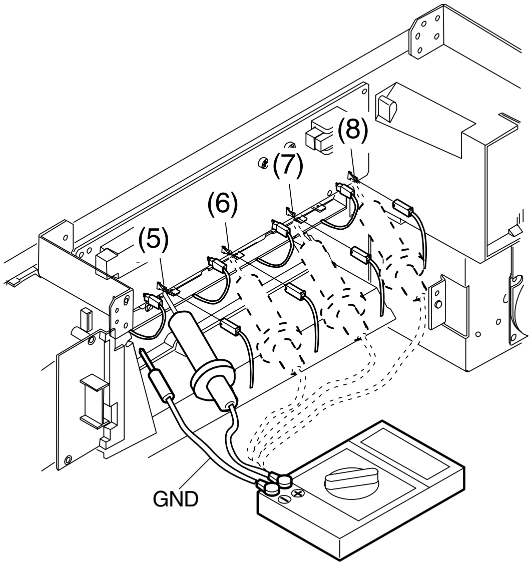
B: 600 ;CYAN

C: 600 ;MAGENTA

D: 600 ;YELLOW

Color	Normal mode adjustment spec			Check pin
	AR-C100/C150	AR-C250	AR-C160/C270	
K	–525 ± 5V	–545 ± 5V	–545 ± 5V	(5)
C	–525 ± 5V	–545 ± 5V	–555 ± 5V	(6)
M	–525 ± 5V	–545 ± 5V	–555 ± 5V	(7)
Y	–525 ± 5V	–545 ± 5V	–555 ± 5V	(8)

Enter the adjustment value with the 10-key and press the [OK] key.



* With all the OPC drums removed from the machine, bring the high voltage probe into contact with the high voltage PWB GB pin to check the adjustment value.

If an effective value meter and a high voltage probe are not available, refer to the table below to enter the adjustment value.

This allows to make a simple adjustment.

Main charger grid voltage adjustment value

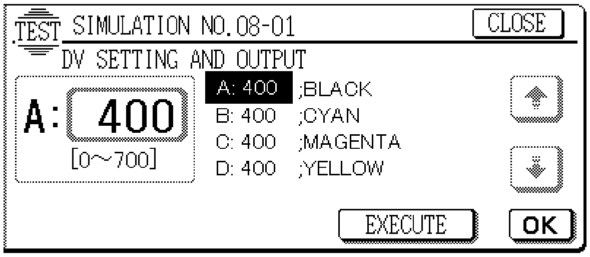
Color	SIM 8-2 adjustment value			
		AR-C100/C150	AR-C250	AR-C160/C270
K	A	525	545	545
C	B	525	545	555
M	C	525	545	555
Y	D	525	545	555

ADJ 2 DV bias voltage adjustment

This adjustment must be performed in the following cases:

- When the high voltage power (MC/DV) PWB is replaced.
- When a U2 trouble occurs.
- When the PCU main PWB is replaced.
- When the EEPROM of the PCU main PWB is replaced.

1) Enter the SIM 8-1 mode.
2) Select the color mode to be adjusted with the scroll key and press the [EXECUTE] key.
3) Check the output voltage with the high voltage probe, and adjust the value of each color so that the specification in the table below is satisfied.
   Enter the adjustment value with the 10-key and press the [OK] key.



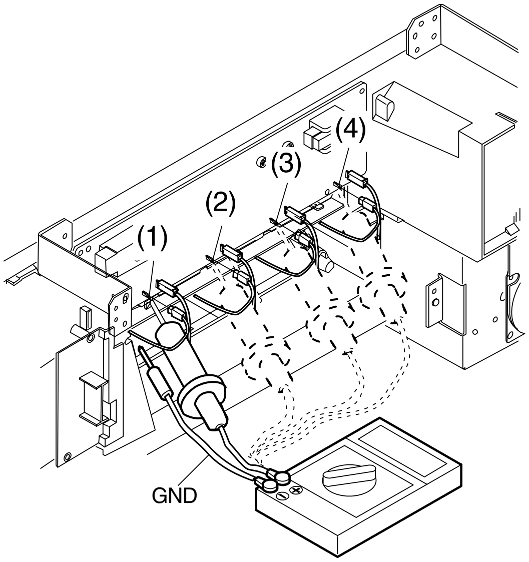
TEST SIMULATION NO.08-01

DV SETTING AND OUTPUT

A: 400
[0~700]

A: 400 ;BLACK
B: 400 ;CYAN
C: 400 ;MAGENTA
D: 400 ;YELLOW

Color	Normal mode adjustment spec	Check pin
K	–325 ± 5V	(1)
C	–325 ± 5V	(2)
M	–325 ± 5V	(3)
Y	–325 ± 5V	(4)



* Set the developing unit (K, C, M, Y), bring the high voltage probe into contact with the high voltage PWB GB pin to check the adjustment value.

If an effective value meter and a high voltage probe are not available, refer to the table below to enter the adjustment value.

This allows to make a simple adjustment.

Developing bias voltage adjustment value

Color	SIM 8-1 adjustment value	
K	A	325
C	B	325
M	C	325
Y	D	325

ADJ 3 Transfer voltage adjustment

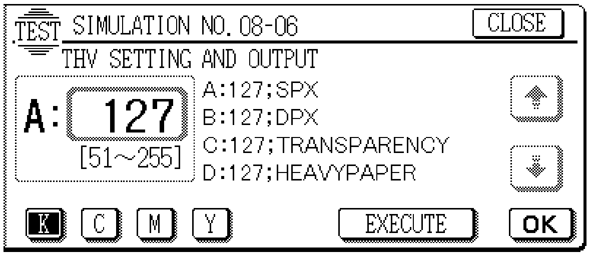
This adjustment must be performed in the following cases:

- When the high voltage power (TC) PWB is replaced.
- When a U2 trouble occurs.
- When the PCU main PWB is replaced.
- When the EEPROM of the PCU main PWB is replaced.

1) Enter the SIM 44-30 mode, enter the following value for each mode and each color, and enter the [OK] key. (AR-C250/C160/C270) (New version of AR-C150)
   Enter the SIM 8-6 mode and enter the following values for each color and press the [OK] key. (Old version of AR-C150)

Transfer voltage input values

	Display	BK	C	M	Y
Normal paper mode	A: SPX	178	164	123	123
ADU mode	B: DPX	178	164	123	123
OHP mode	C: TRANSPARENCY	204	209	167	182
Thick paper mode	D: HEAVY PAPER	204	187	138	138

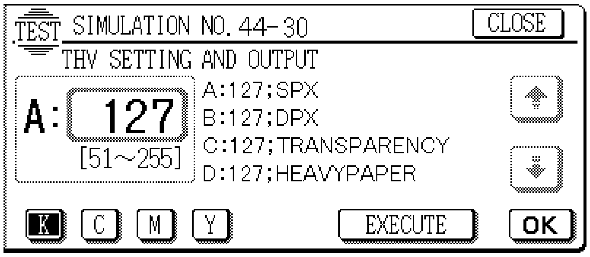


TEST SIMULATION NO.08-06

THV SETTING AND OUTPUT

A: 127
[51~255]

A:127;SPX
B:127;DPX
C:127;TRANSPARENCY
D:127;HEAVYPAPER



THV SETTING AND OUTPUT

A: 127

[51～255]

A:127;SPX
B:127;DPX
C:127;TRANSPARENCY
D:127;HEAVYPAPER

NOTE: Do not press the [EXECUTE] key in SIM 8-6, otherwise the photoconductor may be damaged.

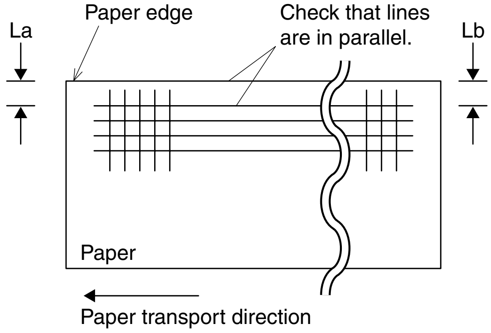
The AR-C250/C160/C270 is provided with the adjustment of the transfer voltage with SIM 44-30 from the beginning of production, and the AR-C100/C150 in the middle of production.

ADJ M5 Paper skew adjustment

This adjustment must be performed in the following cases:

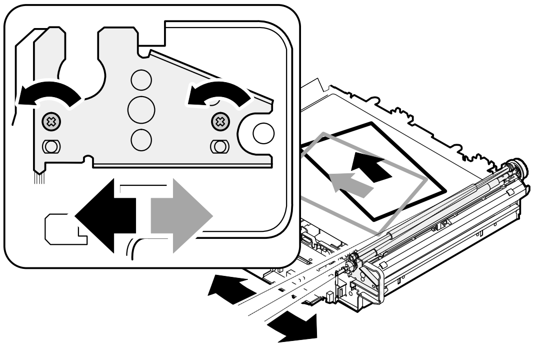
- When the resist roller section is disassembled.

1) Enter the SIM 64-1 mode.
   Select the black print mode.
2) Set the items as shown below:
   A: 5
   B: 255
   C: 1
   D: 9
   E: Select A3 (11 × 17) paper size.
3) Press the [EXECUTE] key.
   The grid pattern is printed. Check that the print line in the paper transport direction is in parallel with both edges.



If the above condition is not satisfied, perform the following procedure.

4) Loosen the resist roller fixing screw, and change the resist roller angle.



The standard position is at the center.

Repeat procedures 3) – 4) until the condition of procedure 3) is satisfied.

ADJ M6 Image density sensor adjustment

ADJ 1 Image density sensor calibration

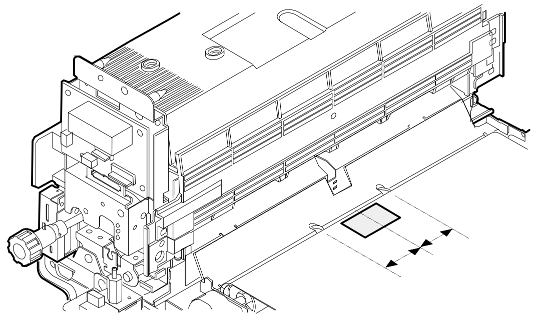
This adjustment must be performed in the following cases:

- When the image density sensor is replaced.
- When the transfer belt is replaced.
- When a U2 trouble occurs.
- When the PCU main PWB is replaced.
- When the EEPROM of the PCU main PWB is replaced.

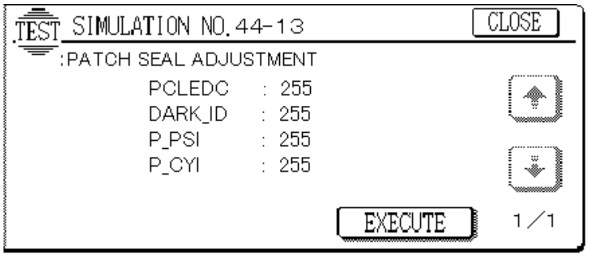
The process control sensor gain adjustment means:

The detection level differs between machines due to variations in density detection sensors and parts. To prevent against this, attach a seal of a certain density on the belt to calibrate the sensor.

1) With the power OFF, open the right cover of the machine.
2) Pull out the transfer unit, and attach the adjustment sheet (UKOG-0281FCZZ) to the belt.
   (The attachment position is between the two separation pawls of the fusing unit.)



3) Return the transfer unit. With the front cover open, turn on the power.
4) Enter the SIM 44-13 mode.
5) Close the front cover.
6) Press the [EXECUTE] key.
   The adjustment is automatically performed. When the adjustment is completed, the [EXECUTE] key returns to the normal display.



:PATCH SEAL ADJUSTMENT

PCLEDC : 255
DARK_ID : 255
P_PSI : 255
P_CYI : 255

7) Check that the SIM 44-13 values are within the specifications.

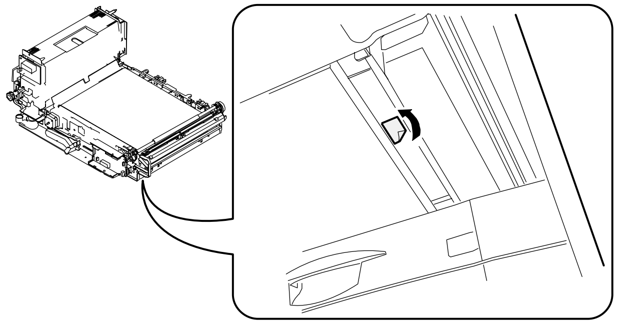
Check content	Spec
PCLEDC (Sensor current in color calibration)	128 or below
DARK_ID (Color image density sensor dark voltage)	50 or below
P_PSI (Read value of calibration sheet)	102 ± 5
P_CYI (Read value of calibration plate)	80 ± 15

* When an error message is displayed, clean the sensor and the calibration plate, and adjust again.

* If the above procedure cannot cancel the error, replace the sensor and the calibration plate.

8) Turn off the power.

9) Pull out the transfer unit, and remove the adjustment sheet.
(The adjustment sheet is positioned in front of the cleaning blade at the back of the unit as the transfer belt rotates.)



10) Return the transfer unit.

NOTE: If the motor drive power is turned on immediately after attaching the adjustment sheet to the transfer belt, the adjustment sheet does not stop at the specified position and the transfer belt keeps rotating.
As a result, the adjustment sheet may be damaged by the transfer cleaning blade or the transfer cleaning blade may be damaged by the adjustment sheet.

To prevent against this, be sure to observe the following.

1) Before entering the SIM 44-13 mode, open the right cover of the machine to open the motor drive power line.
2) After completion of the adjustment, remove the adjustment sheet from the transfer belt.

ADJ 2 Image density sensor sensing position adjustment

This adjustment must be performed in the following cases:

- When the image density sensor is replaced.
- When the image density sensor section is replaced.
- When a U2 trouble occurs.
- When the PCU main PWB is replaced.
- When the EEPROM of the PCU main PWB is replaced.

1) Enter the SIM 44-23 mode.
2) Press the [EXECUTE] key. The adjustment is automatically performed, and the average data is displayed.
When the operation is completed, the [EXECUTE] key is highlighted.
In case of an abnormal end, "ERROR" is displayed.

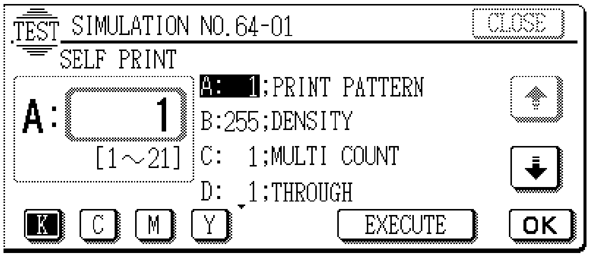
- When the ICU main PWB is replaced.
- When the EEPROM of the ICU main PWB is replaced.

ADJ M7 Image skew adjustment (Scanner (Writing) unit)

This adjustment must be performed in the following cases:

- When the scanner (writing) unit is replaced.
- When the scanner (writing) unit is removed from the machine.
- When a color image mis-resist occurs.
- When the installing location is changed.

1) Enter the SIM 64-1 mode.
Select the color mode of Black.



SIMULATION NO.64-01
SELF PRINT
A: 1
[1～21]
A: 1;PRINT PATTERN
B:255;DENSITY
C: 1;MULTI COUNT
D: 1;THROUGH

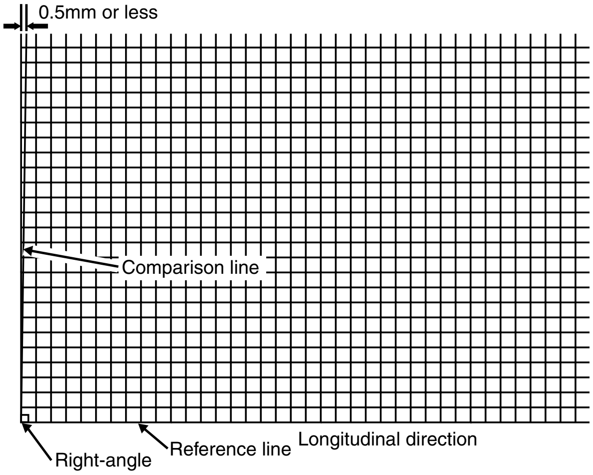
2) Set the values of A – D of the set item as shown in the table below, and make an A3 (11" × 17") copy. (The grid pattern is printed.)
＊ Use the paper tray at the bottom.

SIM 64-1 set items

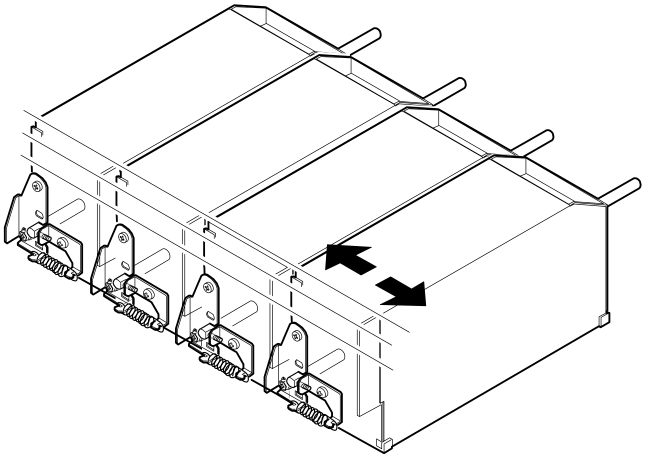
	Parameter	Set value
A	PRINT PATTERN	5
B	PRINT START GRADATION LEVEL	1
C	SELF PRINT Q'TY SETTING	1
D	DENSITY MODE	9

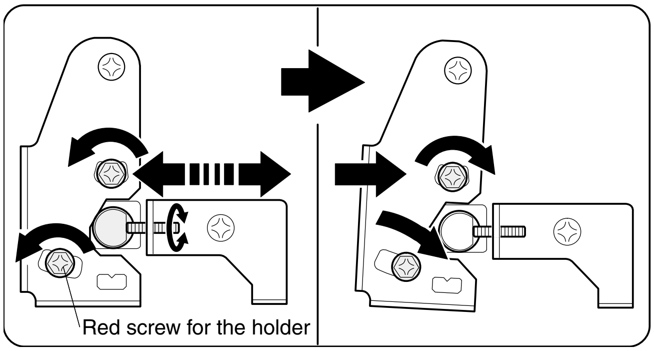
Enter the input value with the 10-key and press the OK key. When the [EXECUTE] key is pressed, printing is performed. Paper is selected by the set item E.

3) Check the distortion of the printed image.
If the right-angle level of the traverse print line is 0.5mm or less for the longitudinal print line of paper, there is no need to adjust.

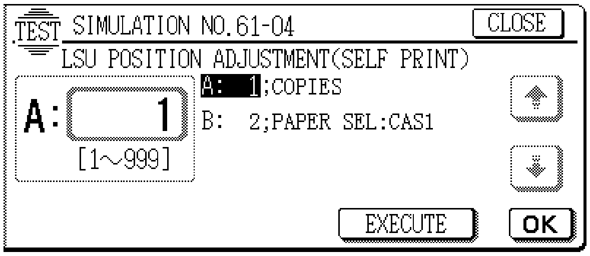


4) If the image is distorted, loosen the red screw for the holder on the chassis side, and adjust the LSU inclination with the black LSU adjustment screw (set screw). (The LSU at the right end is black.)
After completion of the adjustment, fix the holder with the red screw.





5) Enter the SIM 61-4 mode.



TEST SIMULATION NO.61-04

LSU POSITION ADJUSTMENT(SELF PRINT)

A: 1;COPIES

B: 2;PAPER SEL:CAS1

A: 1

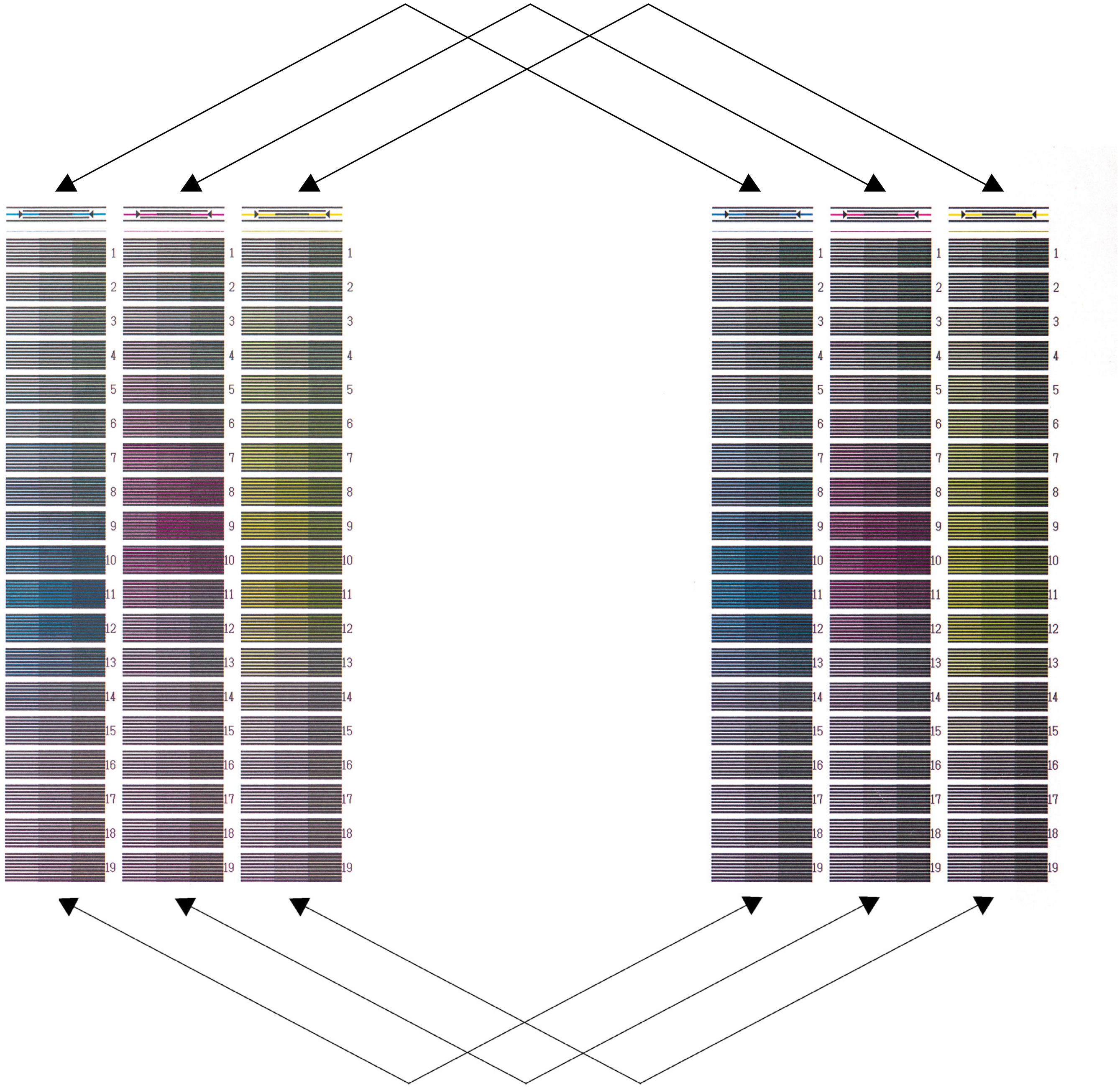
[1～999]

6) Select A3 (11 × 17) paper and press the [EXECUTE] key. Paper is selected by the set item B.
The check pattern is printed.

* Use the paper tray at the bottom.

7) Check that the center shift between the Y/M/C print color patterns is within 0 ± 1 step.
(Check the shift between the print patterns of the same color. Even though there is some shift between different colors, there is no problem.)
If the above condition is not satisfied, loosen the red screw for the holder on the front side of the chassis, and adjust the LSU adjustment screw (set screw) to adjust the LSU inclination.
After completion of the adjustment, fix the holder with the red screw.

Compare the positions (front-rear) of the same color



Compare the positions (front-rear) of the same color print patterns.

Procedures 1) – 4) : Adjustment procedures of the black LSU

Procedures 5) – 7) : Adjustment procedures of the color LSU

ADJ M8 Photoconductor phase adjustment

This adjustment is available in two procedures, old and new. Both are basically the same. Either procedure will do.

The differences between the old and the new procedures are as follows:

* Some AR-C100/C150 machines use the old procedure (with SIM 44-20). On the other hand, the AR-C250/C160/C270 uses only the new procedure (with SIM 44-31) and does not have the old procedure.
In the AR-C100/C150, the old procedure (with SIM 44-20) is abolished and the new procedure is employed in the middle of production.

* In SIM 44-31, the adjustment pattern is printed in A4R or 8.5" × 11"R size.
In SIM 44-20, the adjustment pattern is printed in A3 or 11" × 17" size.

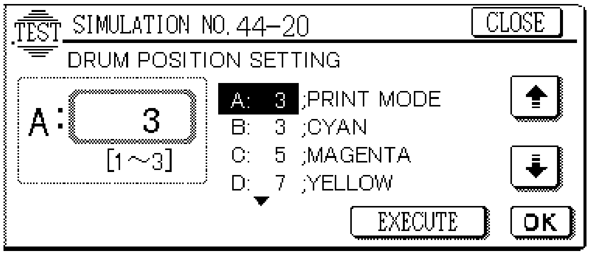
* The adjustment pattern photoconductor phase adjustment pitch (interval) differs. (12 division → 8 division)

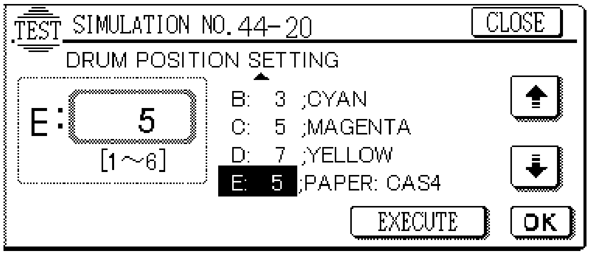
This adjustment is required in the following cases:

- When the photoconductor drum is replaced.
- When the photoconductor drum is removed from the machine.
- When the photoconductor drum drive section is disassembled.
- When the photoconductor drum drive unit is replaced.
- When U2 trouble occurs.
- When PCU MAI PWB is replaced.
- When EEPROM on the PCU MAIN PWB is replaced.

Old procedure of photoconductor phase adjustment (SIM 44-20)

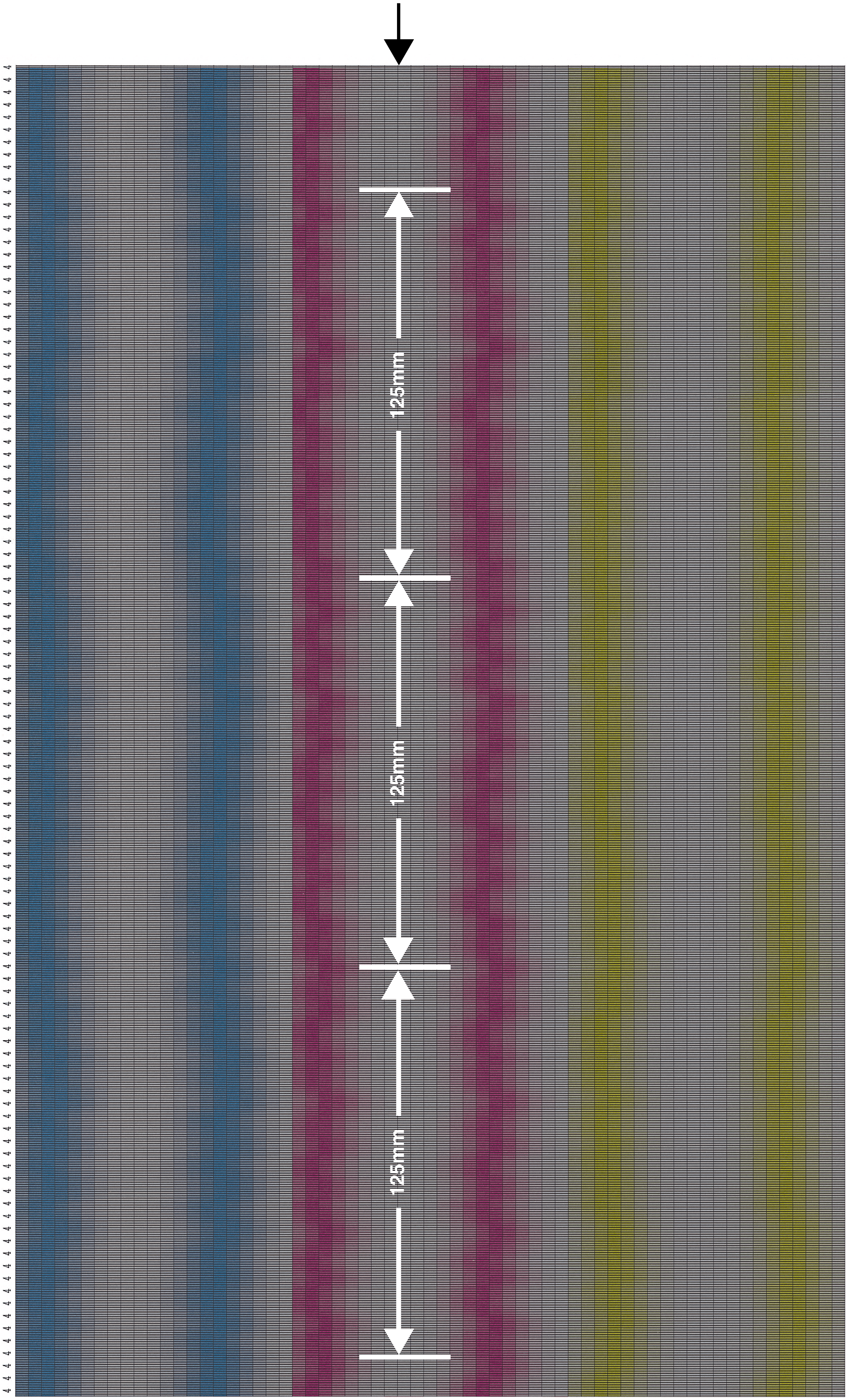
1) Enter the SIM 44-20 mode.


SIMULATION NO.44-20
DRUM POSITION SETTING
A: 3
[1~3]
A: 3 ;PRINT MODE
B: 3 ;CYAN
C: 5 ;MAGENTA
D: 7 ;YELLOW


SIMULATION NO.44-20
DRUM POSITION SETTING
E: 5
[1~6]
B: 3 ;CYAN
C: 5 ;MAGENTA
D: 7 ;YELLOW
E: 5 ;PAPER: CAS4

2) Enter "2" in the setup item A (PRINT MODE) with the 10-key, then press the [OK] key. (Default setting is 3.)
3) Select the paper feed cassette with A3 (11" × 17") paper in the setup item E (PAPER SELECT), and press the [OK] key.
   * Use the paper tray at the bottom.
4) Press the [EXECUTE] key, and the drum deflection adjustment pattern is printed in four pages.
   * Pattern N (1, 4, 7, 10) is printed.
5) Check the deflection cycle of 125.6mm pitch of four printed patterns (C, M, Y). Use the output pattern of the smallest deflection as the set value of each color, and set it to item B, C, and D. (After entering the adjustment value, press the OK key.)
6) After entering the adjustment value, enter "3" to set item A with the 10-key and press the [EXECUTE] key to print the adjustment pattern again.
   If the above procedures cannot bring a satisfactory result, select mode 1 and print twelve pages of the print pattern.
   This allows to make more detailed checks and adjustments.
   The adjustment procedure is the same as procedure 5).
   It, however, takes about 6 min to do this procedure.

NOTE: If there is an extra deflection other than the drum frequency (125.6mm pitch), check the set values of the RS motor and the fusing motor speed.


125mm
125mm
125mm

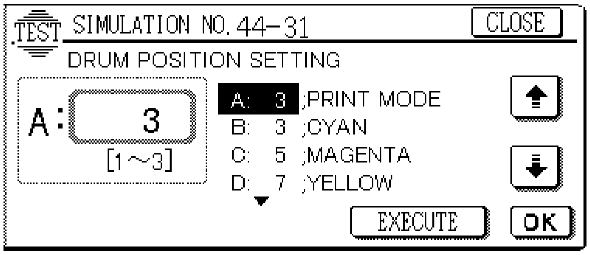
Deflection pattern of Magenta

A3 or 11" x 17"

Check the deflection of 125mm pitch.

New procedure of photoconductor phase adjustment (SIM 44-31)

1) Enter the SIM 44-31 mode.



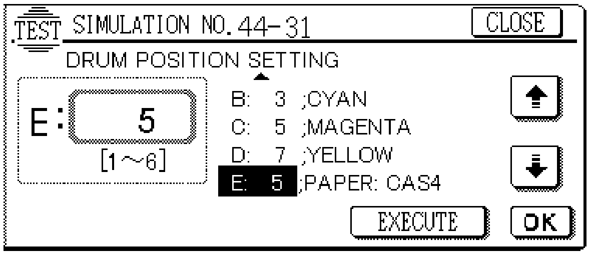
SIMULATION NO. 44-31

DRUM POSITION SETTING

A: 3

[1～3]

A: 3 ;PRINT MODE
B: 3 ;CYAN
C: 5 ;MAGENTA
D: 7 ;YELLOW



SIMULATION NO. 44-31

DRUM POSITION SETTING

E: 5

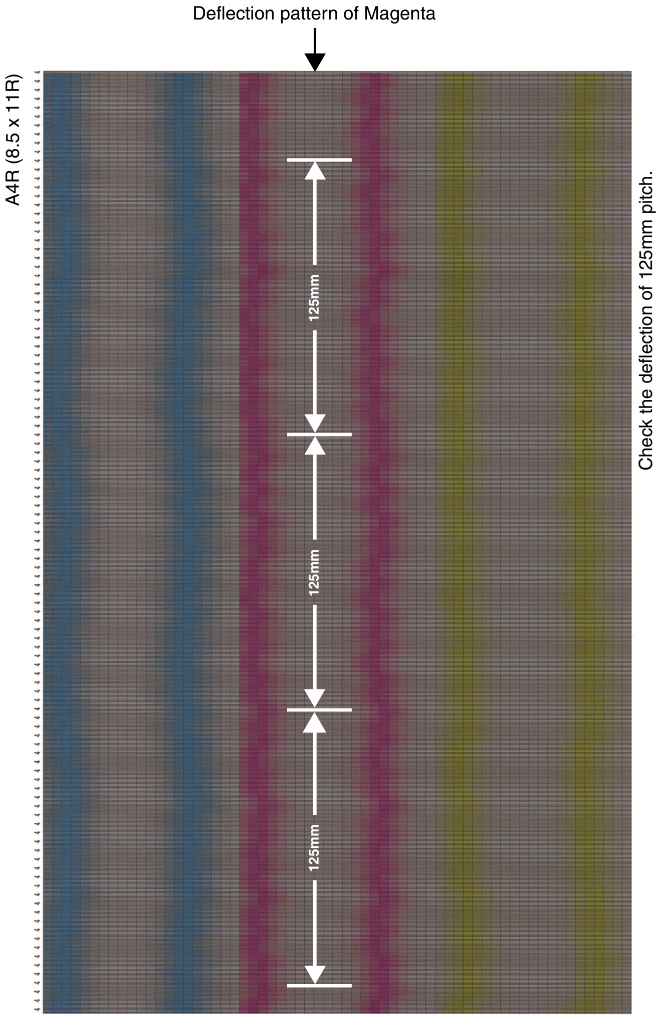
[1～6]

B: 3 ;CYAN
C: 5 ;MAGENTA
D: 7 ;YELLOW
E: 5 ;PAPER: CAS4

2) Enter "2" in the setup item A (PRINT MODE) with the 10-key, and press the [OK] key. (The default is "3.")
3) Select the paper tray with A4R (8.5 × 11R) paper in the setup item E (PAPER SELECT) and press the [OK] key.

NOTE: Use the lowest paper tray.

4) Press the [EXECUTE] key, and the drum deflection adjustment patterns (4 pages) are printed.


Deflection pattern of Magenta
A4R (8.5 x 11R)
125mm
125mm
125mm
Check the deflection of 125mm pitch.

* Pattern numbers 1, 3, 5, and 7 are printed on the output pattern.

5) Check the deflection of 125.6mm pitch for each of C, M, and Y in the four output patterns, and select the output pattern number with the smallest deflection as the set value of each color, and set the number to each of setup items B, C, and D. (After entering the adjustment value, press the [OK] key.)
6) After entering the adjustment value, enter "3" in the setup item A with the 10-key and press the [EXECUTE] key to print an adjustment pattern for checking again.

If the above procedure is not satisfactory, select the PRINT MODE 1 to print 12 print patterns.

This allows to make more detailed check and adjustment. The adjustment procedure is the same as procedure 5).

This procedure takes about 4 minutes.

NOTE: If there is an extra deflection other than the drum frequency (125.6mm pitch), check the set values of the RS motor and the fusing motor speed.

ADJ M9A Image resist adjustment (Auto adjustment) (AR-C250/C160/C270) (New version of AR-C150)

The following items are automatically adjusted.

- ADJ M9/ADJ1 main scanning direction copy magnification ratio adjustment (Scanner (writing) unit) (Black)
- ADJ M9/ADJ 2 main scanning direction image magnification ratio adjustment, image resist adjustment (Scanner (writing) unit) (Color)
- ADJ M10 sub scanning direction image resist adjustment (Scanner (writing) unit)

If this automatic adjustment of ADJ M9A is not satisfactory, perform the manual adjustment of ADJ M9 and ADJ M10.

This adjustment is required in the following cases:

- When the scanner (writing) unit is replaced.
- When the scanner (writing) unit is removed from the machine.
- When the main scanning direction image magnification ratio adjustment (scanner (writing) unit) (Black) is performed.
- When color image mis-resist is generated in the main scanning direction.
- When color image mis-resist is generated in the sub scanning direction.
- When installation or the installing place is changed.
- When U2 trouble occurs.
- When ICU MAIN PWB is replaced.
- When EEPROM on ICU MAIN PWB is replaced.

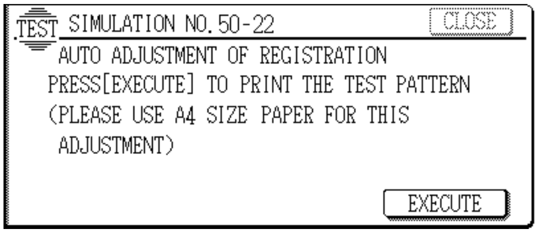
Note before adjustment

Before execution of this adjustment, check that the following adjustment have been properly completed.

* Photoconductor phase adjustment (ADJ M8)

* Image skew adjustment (scanner (writing) unit) (ADJ M7)

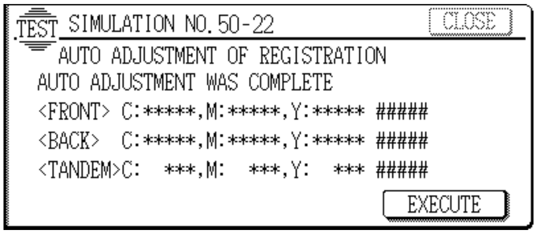
1) Enter the SIM 50-22 mode.



SIMULATION NO. 50-22

AUTO ADJUSTMENT OF REGISTRATION

PRESS[EXECUTE] TO PRINT THE TEST PATTERN
(PLEASE USE A4 SIZE PAPER FOR THIS
ADJUSTMENT)



SIMULATION NO. 50-22

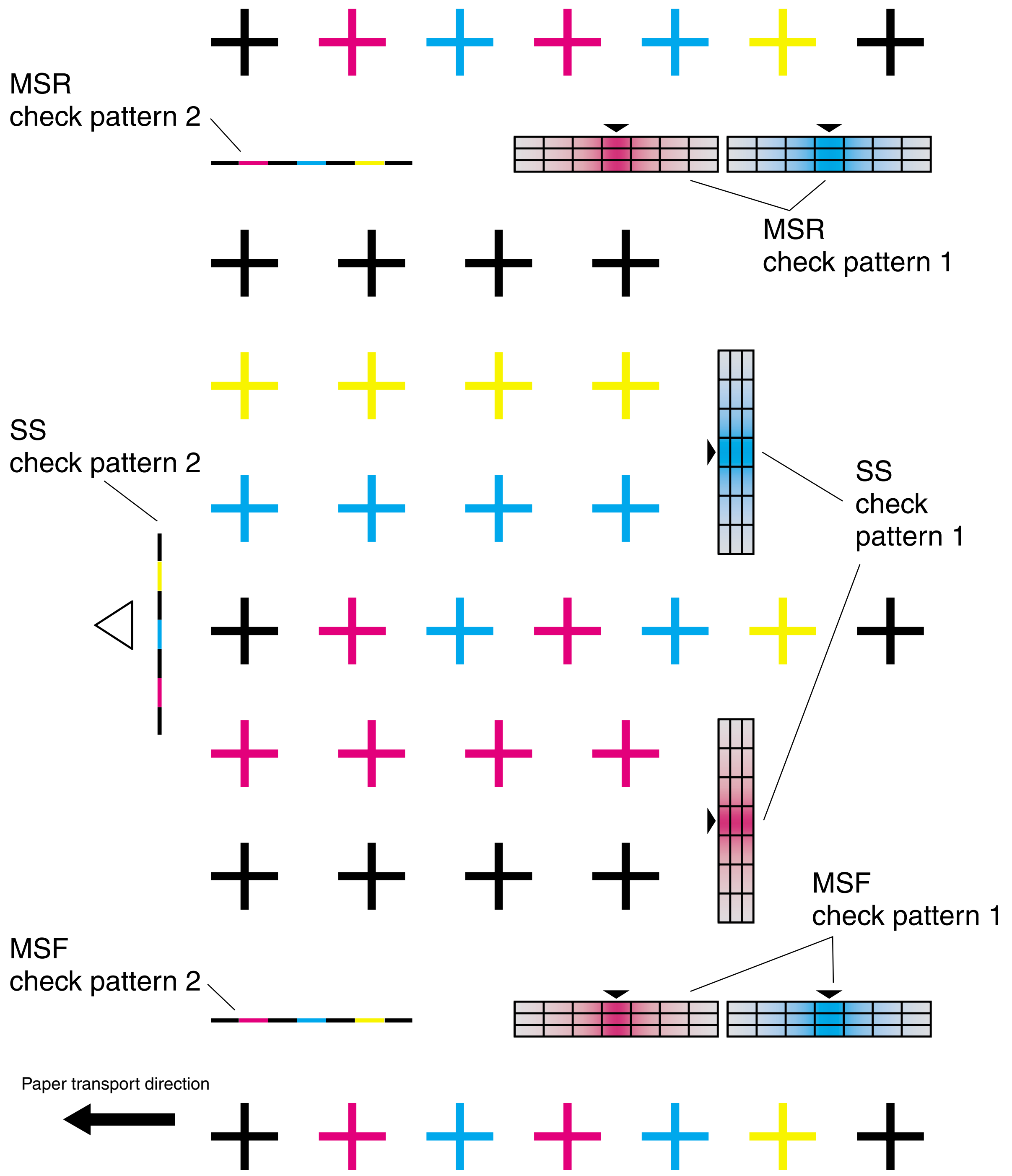
AUTO ADJUSTMENT OF REGISTRATION

```
AUTO ADJUSTMENT WAS COMPLETE
<FRONT> C:*****,M:*****,Y:***** #####
<BACK>  C:*****,M:*****,Y:***** #####
<TANDEM>C:  ***,M:  ***,Y:  *** #####
```

2) Press the [EXECUTE] key.
A4 or 8.5 × 11 paper is automatically selected and a check pattern is printed.

[Main/sub scanning resist automatic adjustment check pattern]

A4 or 8.5 x 11


MSR
check pattern 2
MSR
check pattern 1
SS
check pattern 2
SS
check
pattern 1
MSF
check pattern 1
MSF
check pattern 2
Paper transport direction

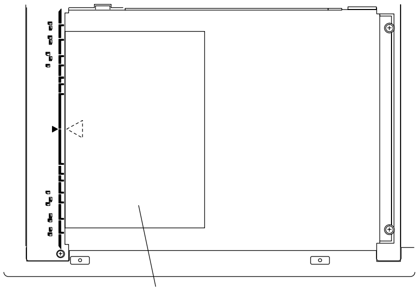
- If the great density sections of C and M are in the range of –1 to +1 with the mark ▼ as the reference in the check pattern 1, it is O.K.
- If the above procedure is not satisfactory, or for Yellow, check that the color lines are shifted from the black lines in the check pattern 2.

3) Check the following items with the check pattern.
   - ＊ Check that the section of the greatest density of C and M in MSR check pattern, MSF check pattern 1, and SS check pattern is in the range of ± 1 with the black triangle mark as the center reference.
     If this check is difficult, perform the following procedure.
     Check that the print lines of M and C in SS check pattern 2, MSF check pattern 2, and MSR check pattern 2 coincide with the print lines of K.
   - ＊ Check that the print line of Y in the check (adjustment) pattern of MSR check pattern 2, MSF check pattern 2, and SS check pattern 2 coincides with the print line of K.

If the above conditions are satisfied, cancel the simulation and terminate the adjustment.

If the above conditions are not satisfied, perform the following procedures.

4) Set the printed check (adjustment) pattern on the document table.
   At that time, adjust so that the white triangle mark comes to the center of the left side of the document table, and place 5 sheets of white paper on it.
   Check that the check (adjustment) pattern is in close contact with the document table.



Check (adjust) pattern

5) Press the [EXECUTE] key.
   The check (adjustment) pattern is scanned (read) and the image resist adjustment is automatically performed. (It takes about 30 sec for scanning (reading) and calculation.)

The calculated adjustment value is displayed together with the adjustment result (EXACT, ROUGH, ERROR).

EXACT:	The adjustment has been normally completed.
ROUGH:	The accuracy of the adjustment is lower than EXACT due to dirt, dusts, and improper placing of the check (adjustment) pattern, etc.
ERROR:	Adjustment error due to erroneous scanning

When "ERROR" is displayed, check the following items and repeat procedures from procedure 1 or perform the manual adjustment of image resist (ADJ M9/ADJ 1/ADJ 2).

＊ The paper is not placed properly.

＊ Dirt and dust on the glass and mirrors.

＊ The check (adjustment) pattern is dirty, folded, or not in close contact with the document glass.

When the check (adjustment) pattern is normally scanned (read), the image resist adjustment is automatically performed and EXACT or ROUGH is displayed, go to procedure 6).

6) Press the [EXECUTE] key.
   A4 or 8.5 × 11 paper is automatically selected and a check (adjustment) pattern is printed.
7) Perform the same procedure as procedure 3). If the image resist is within the specified range, adjustment is completed.

If the adjustment is repeated twice and the image resist is not within the specified range, perform the manual adjustment of image resist (ADJ M9/ADJ 1/ADJ 2).

If the image resist adjustment (auto) has been satisfactorily completed with SIM 50-22, there is no need to perform the following procedures.

1) ADJ M9 (Main scanning direction image resist adjustment/Main scanning direction image magnification ratio adjustment) SIM 50-20
2) ADJ M10 (Sub scanning direction image resist adjustment) SIM 50-21

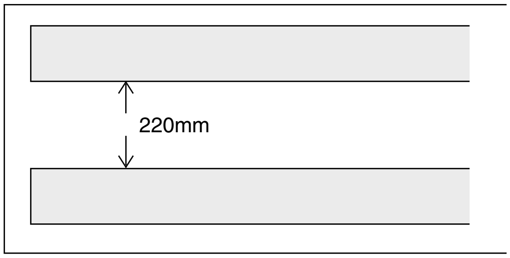
ADJ M9 Main scanning direction copy magnification ratio adjustment (Manual adjustment) (Scanner (Writing) unit) Main scanning direction image registration adjustment (Manual adjustment) (Scanner (Writing) unit)

ADJ 1 Main scanning direction copy magnification ratio adjustment (Scanner (Writing) unit) (Black)

This adjustment must be performed in the following cases:

- When the black scanner (writing) unit is replaced.
- When a U2 trouble occurs.
- When the ICU main PWB is replaced.
- When the EEPROM of the ICU main PWB is replaced.

1) Enter the SIM 50-10 mode.
2) Select H: BLACK LD MAG.
3) Press the [EXECUTE] key.
4) Check that the dimension inside the printed half tone pattern is 220mm.



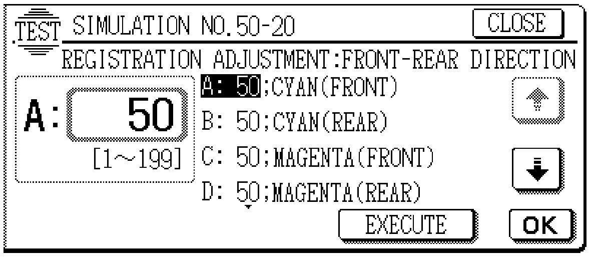
   Use one of the following paper sizes (A4/A3/11" × 8.5"/11" × 17")
5) If the dimension is not as specified above, change the set value and perform an adjustment again.
   Enter the adjustment value with the 10-key and press the [OK] key.

ADJ 2 Main scanning direction color image registration adjustment (Scanner (Writing) unit) (Color) Main scanning direction copy magnification ratio adjustment (Scanner (Writing) unit) (Color)

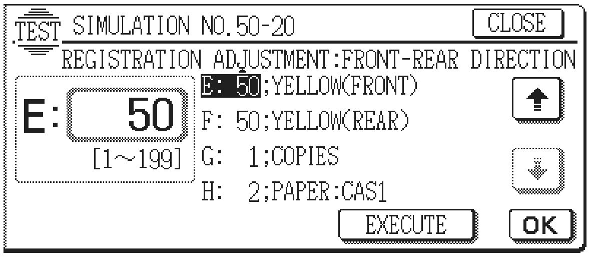
This adjustment must be performed in the following cases:

- When the scanner (writing) unit is replaced.
- When the scanner (writing) unit is removed from the machine.
- When the main scanning direction image magnification ratio (scanner (writing) unit (Black)) is performed.
- When a color image mis-resist occurs in the main scanning direction.
- When the installing position is changed.
- When a U2 trouble occurs.
- When the ICU main PWB is replaced.
- When the EEPROM of the ICU main PWB is replaced.

1) Enter the SIM 50-20 mode.



SIMULATION NO.50-20
REGISTRATION ADJUSTMENT:FRONT-REAR DIRECTION
A: 50
[1~199]
A: 50;CYAN(FRONT)
B: 50;CYAN(REAR)
C: 50;MAGENTA(FRONT)
D: 50;MAGENTA(REAR)



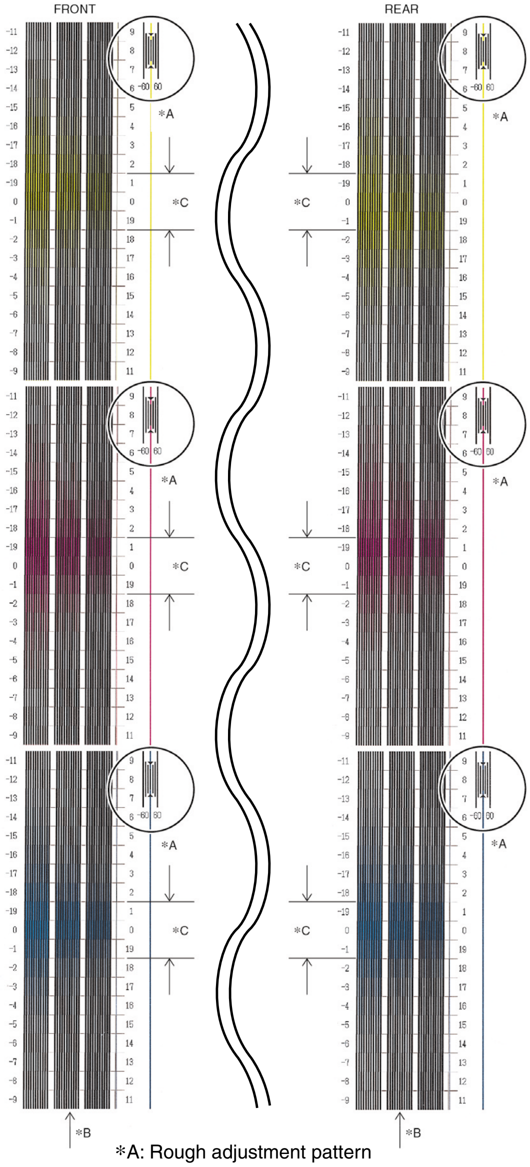
SIMULATION NO.50-20
REGISTRATION ADJUSTMENT:FRONT-REAR DIRECTION
E: 50
[1~199]
E: 50;YELLOW(FRONT)
F: 50;YELLOW(REAR)
G: 1;COPIES
H: 2;PAPER:CAS1

2) Select the paper feed cassette of A3 (11" × 17") paper in the setup item H (PAPER SEL).

   * Use the paper tray at the bottom.

3) Press the [EXECUTE] key. The adjustment pattern is printed.

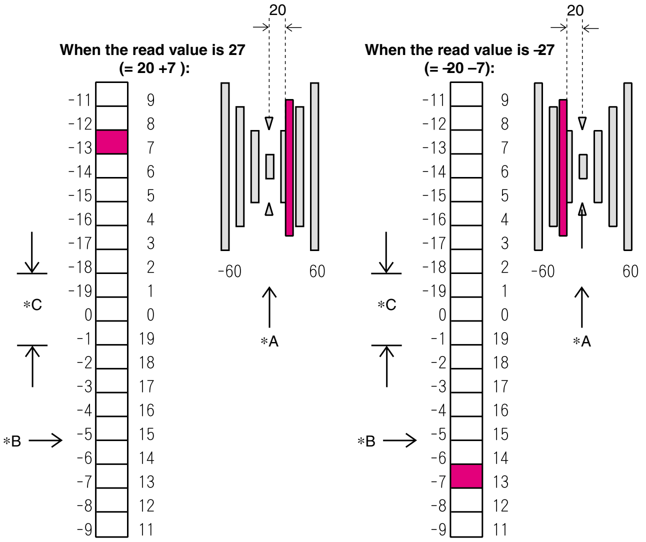
4) Check the print patterns of the rough adjustment and the fine adjustment for equal color on the front and the rear side.
   Rough adjustment print pattern check: Check that the rough adjustment print pattern is at the center for the rough adjustment reference pattern.
   Fine adjustment print pattern check: Check that the fine adjustment print pattern is at the center for the fine adjustment reference pattern.
   (If the fine adjustment print pattern is in the range of 0 ± 1 for the scale of the fine adjustment reference pattern, there is no need to adjust.)



*A: Rough adjustment pattern
*B: Fine adjustment pattern
*C: Adjustment range (0±1)

[How to read the pattern]

When deflection is made to the positive (+) side in the rough adjustment, increase the value on the positive (+) side.
When the deflection is made to the negative (–) side in the rough adjustment, increase the value on the negative (–) side.

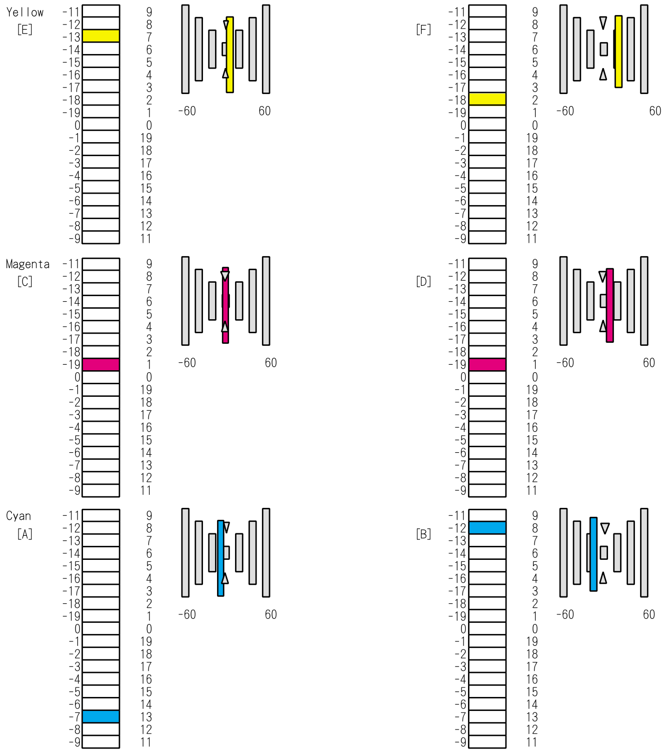

When the read value is 27 (= 20 +7):
When the read value is –27 (= –20 –7):
20
20
-60
60
-60
60
*A
*A
*B
*B
*C
*C

(Example)
When the simulation is set to 105, newly set to 132 (= 105 + 27).

(Example)
When the simulation is set to 105, newly set to 78 (= 105 –27).

*A: Rough adjustment pattern
*B: Fine adjustment pattern
*C: Adjustment range

[Main scan registration adjustment pattern]



(Example) Set the simulation values as shown below.

A: 100		A: 93 (=100 –7)
B: 112		B: 100 (=112 –12)
C: 95	→	C: 96 (=95+1)
D: 98	Reset value	D: 109 (=98+11)
E: 102		E: 109 (=102+7)
F: 96		F: 118 (=96+22)

If the rough adjustment pattern or the fine adjustment pattern is not in the above range, perform the following procedures.

5) Calculate the shift from the adjustment reference position for each adjustment mode.
The sum of the shift of rough adjustment reference and the shift of fine adjustment is the actual shift.
Shift (Correction value) = Rough adjustment shift + Fine adjustment shift
The interval between scales of the rough adjustment reference corresponds to 20. Be careful of polarities of the shift (positive or negative) when calculating.
6) Select the mode to be adjusted with the scroll key.
7) Add or reduce to or from the current adjustment value, enter the obtained value, and press the [OK] key.
   - When the shift (correction value) is positive:
     Adjustment value = Current adjustment value + Shift (Correction value)
   - When the shift (correction value is negative:
     Adjustment value = Current adjustment value – Shift (Correction value)
8) Press the [EXECUTE] key.
The adjustment pattern is printed.
Check that the conditions of procedure 4) are satisfied.
Repeat procedures 4) –8) until the conditions of procedure 4) are satisfied.

NOTE: When either of the adjustment values of the front and the rear adjustment mode is changed, the other adjustment print pattern may be varied. Be careful of that.

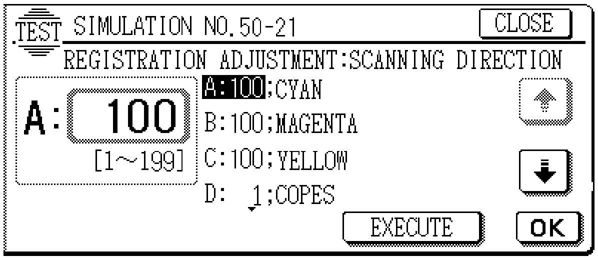
When the adjustment can be completed with a fine adjustment, perform the front adjustment mode first, and then perform the rear adjustment mode after completion of the front adjustment.

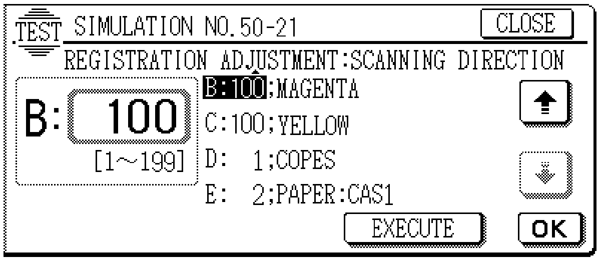
Before performing this adjustment, be sure to adjust the K magnification ratio (SIM 50-10, H) properly.

ADJ M10 Sub scanning direction color image resist adjustment (Manual adjustment) (Scanner (Writing) unit) (Color)

This adjustment must be performed in the following cases:

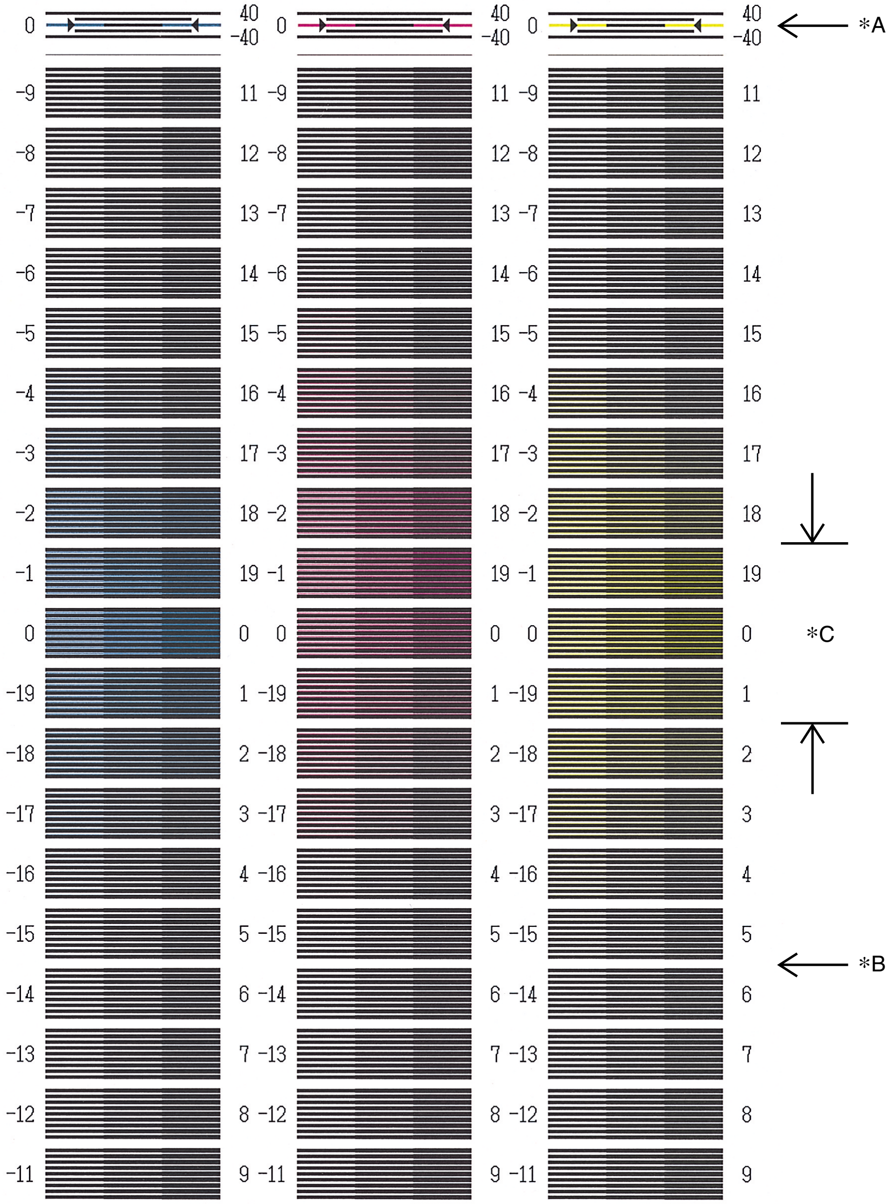
- When the scanner (writing) unit is replaced.
- When the scanner (writing) unit is removed from the machine.
- When a color image mis-resist occurs in the sub scanning direction.
- When the installing position is changed.
- When a U2 trouble occurs.
- When the ICU main PWB is replaced.
- When the EEPROM of the ICU main PWB is replaced.


TEST SIMULATION NO.50-21
REGISTRATION ADJUSTMENT:SCANNING DIRECTION
A: 100
[1~199]
A:100;CYAN
B:100;MAGENTA
C:100;YELLOW
D: 1;COPES


TEST SIMULATION NO.50-21
REGISTRATION ADJUSTMENT:SCANNING DIRECTION
B: 100
[1~199]
B:100;MAGENTA
C:100;YELLOW
D: 1;COPES
E: 2;PAPER:CAS1

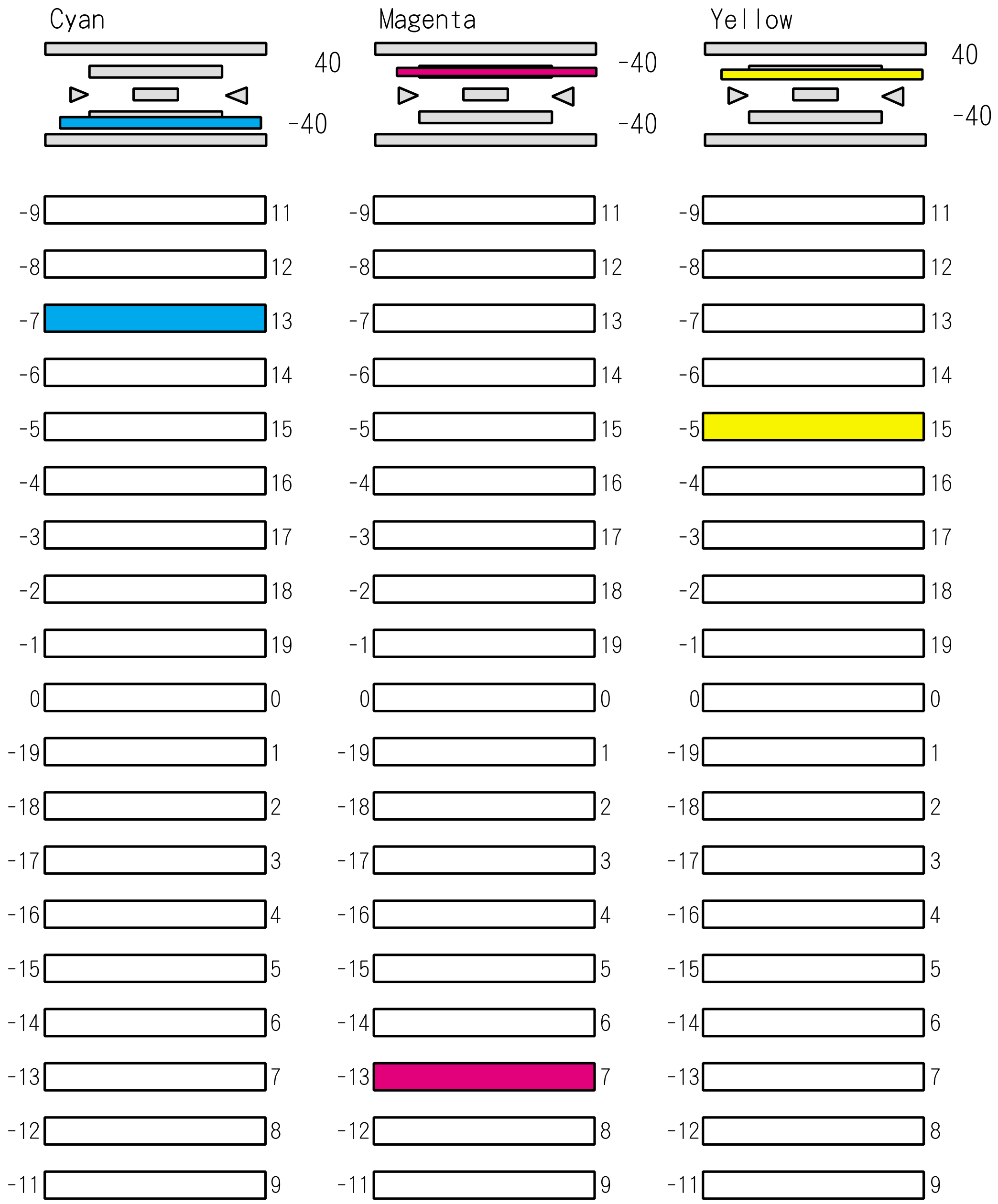
1) Enter the SIM 50-21 mode.
2) Select the paper feed cassette of A4 (8 1/2" × 11") paper in the setup item E (PAPER SEL).
   ∗ Use the paper tray at the bottom.
3) Press the [EXECUTE] key. The adjustment pattern is printed.
4) Check the rough adjustment print pattern position and the fine adjustment print pattern position for each color.
   - Rough adjustment print pattern check
     Check that the rough adjustment print pattern is at the center of the rough adjustment reference pattern.
   - Fine adjustment print pattern check
     Check that the fine adjustment print pattern is at the center of the fine adjustment reference pattern.

   (If the fine adjustment print pattern is in the range of 0 ± 1 for the scale of the fine adjustment reference pattern, there is no need to adjust.)



∗A: Rough adjustment pattern
∗B: Fine adjustment pattern
∗C: Adjustment range

[Sub scan registration adjustment pattern]


Cyan
40
-40
Magenta
-40
-40
Yellow
40
-40
-9 11
-8 12
-7 13
-6 14
-5 15
-4 16
-3 17
-2 18
-1 19
0 0
-19 1
-18 2
-17 3
-16 4
-15 5
-14 6
-13 7
-12 8
-11 9

(Example) Set the simulation set values as shown below.

A: 100
B: 112
C: 95

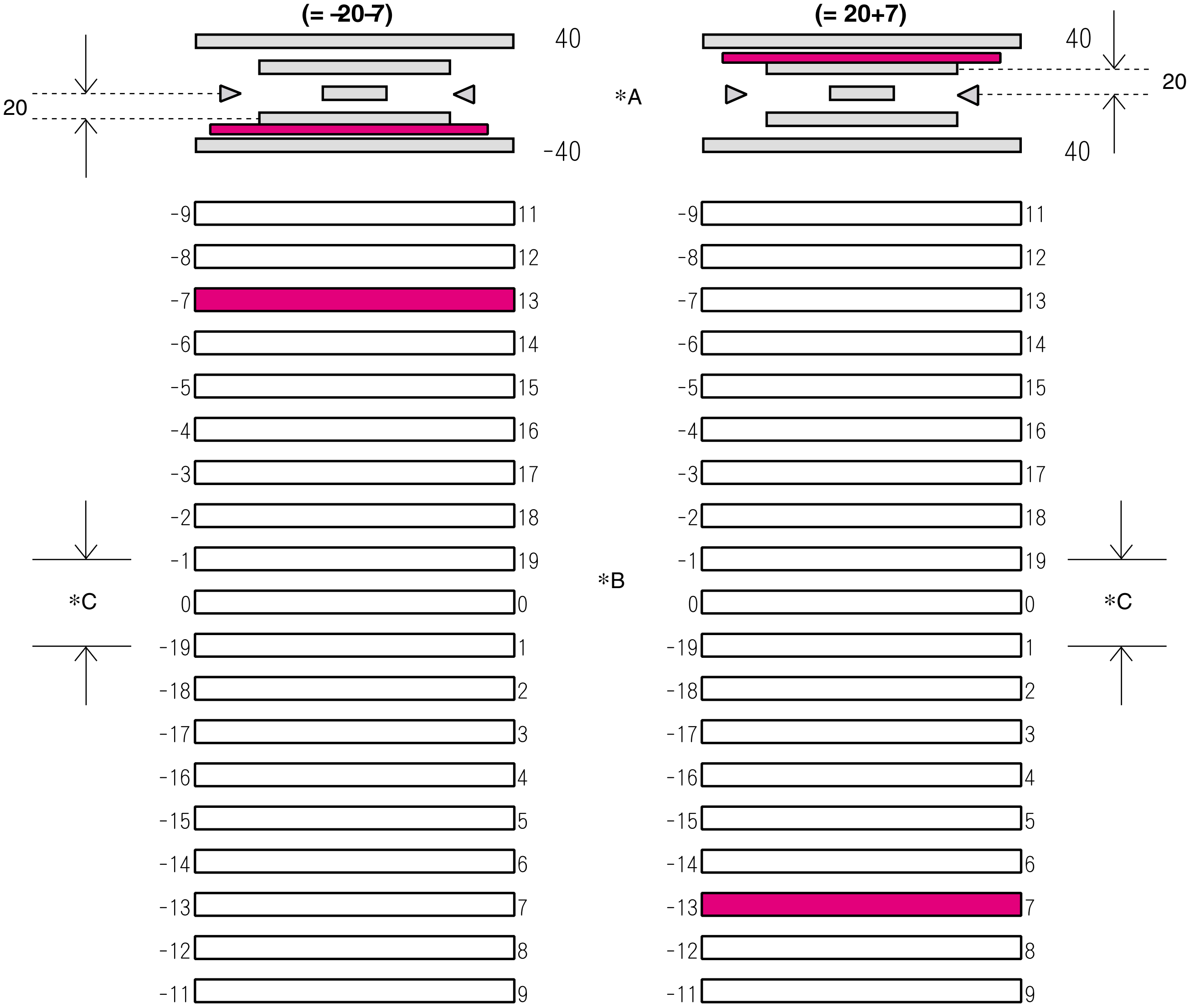
→
Set value

A: 73 (=100 –27)
B: 129 (=112 + 17)
C: 110 (=95+15)

[How to read the pattern]

When deflection is made to the positive (+) side in the rough adjustment, increase the value on the positive (+) side.

When the deflection is made to the negative (−) side in the rough adjustment, increase the value on the negative (−) side.



When the read value is −27 (= −20−7)

(Example)
When the simulation is set to 105,
newly set to 78 (= 105 – 27).

When the read value is 27 (= 20+7)

(Example)
When the simulation is set to 105,
newly set to 132 (= 105 + 27).

*A: Rough adjustment pattern
*B: Fine adjustment pattern
*C: Adjustment range

If the rough adjustment pattern or the fine adjustment pattern is not in the above range, perform the following procedures

5) Calculate the shift from the adjustment reference position for each adjustment mode.
   The sum of the shift of rough adjustment reference and the shift of fine adjustment is the actual shift.
   Shift (Correction value) = Rough adjustment shift + Fine adjustment shift
   The interval between scales of the rough adjustment reference corresponds to 20. Be careful of polarities of the shift (positive or negative) when calculating.
6) Select the mode to be adjusted with the scroll key.
7) Add or reduce to or from the current adjustment value, enter the obtained value, and press the [OK] key.
   - When the shift (correction value) is positive:
     Adjustment value = Current adjustment value + Shift (Correction value)
   - When the shift (correction value is negative:
     Adjustment value = Current adjustment value – Shift (Correction value)
8) Press the [EXECUTE] key.
   The adjustment pattern is printed.
   Check that the conditions of procedure 4) are satisfied.

Repeat procedures 4) – 8) until the conditions of procedure 4) are satisfied.

NOTE: Before performing this adjustment, SIM 44-20 or 44-31 (drum phase adjustment) must have been adjusted properly.

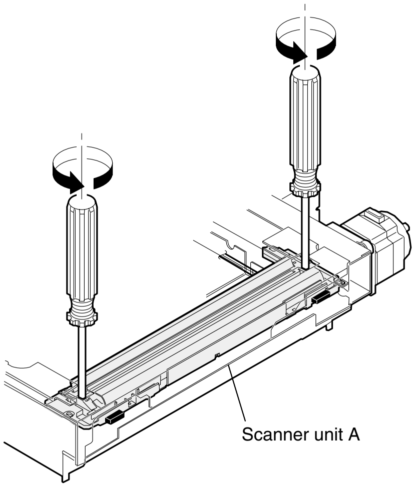
ADJ M11 Image distortion adjustment

This adjustment must be performed in the following cases:

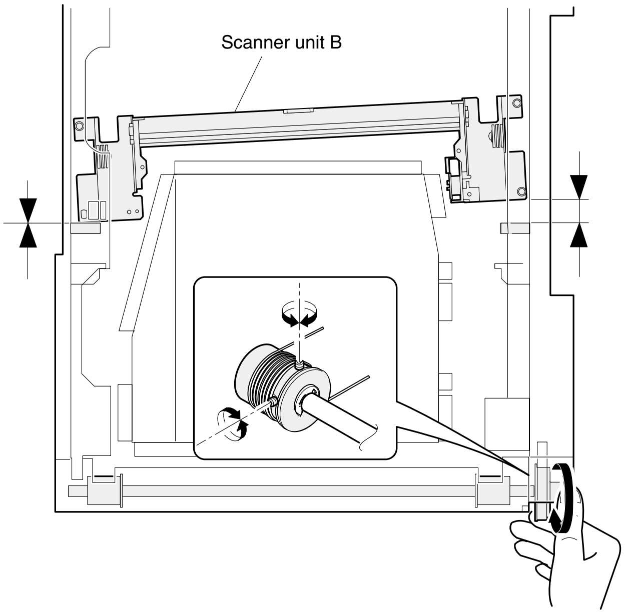
- When the scanner (reading) section is disassembled.
- When a copy image distortion occurs.

ADJ 1 Scanner (Reading) unit parallelism adjustment

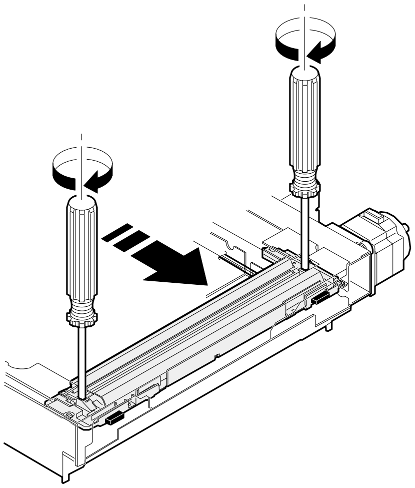
1) Loosen the screw which is fixing the scanner unit A and the drive wire, and remove the scanner unit A from the drive wire.

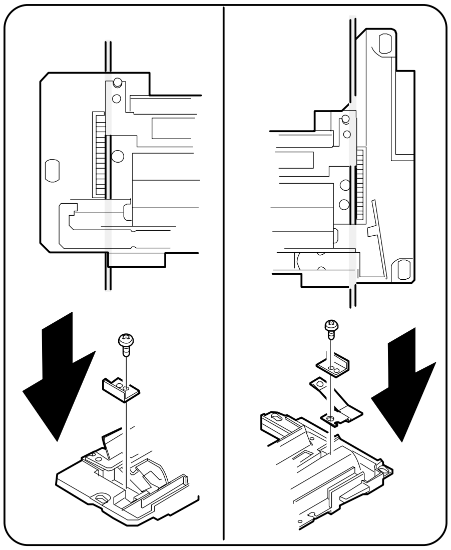


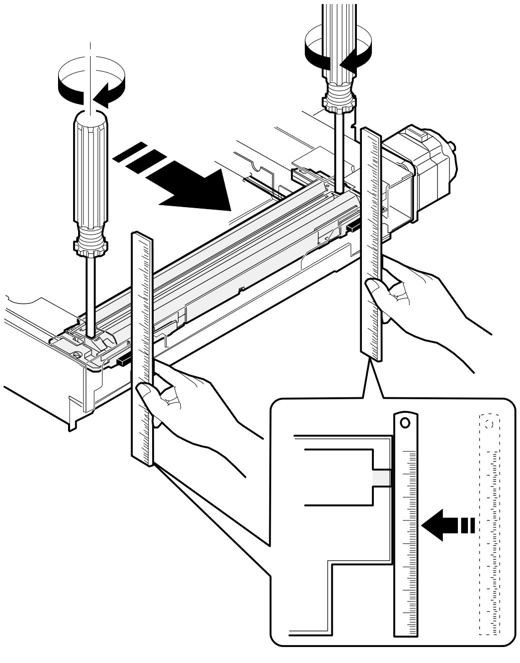
2) Manually turn the scanner drive gear to bring the scanner unit B into contact with the stopper.
At that time, if the scanner unit B makes contact with the two stoppers on the front and the rear frame simultaneously, the parallelism of the scanner unit B is proper.
If not, perform the following procedures.
3) Loosen the fixing screw of the scanner unit drive pulley on the side where the scanner unit B is not in contact with the stopper.



4) While keeping the scanner unit drive shaft stationary, turn the scanner unit drive pulley manually so that the scanner unit B makes contacts with two stoppers on the front and the rear frame side simultaneously. (Change the relative positions of the scanner unit drive pulley and the drive shaft.)
5) Fix the scanner unit drive pulley fixing screw which was loosened in procedure 3).
6) Perform procedure 2).
Repeat procedures 3) – 6) until the parallelism of the scanner unit B becomes proper.
7) With the scanner unit B in contact with two stoppers on the front and the rear frame side simultaneously, slide the scanner unit A until it comes to the right end of the frame, and fix it to the drive wire with the fixing screw.

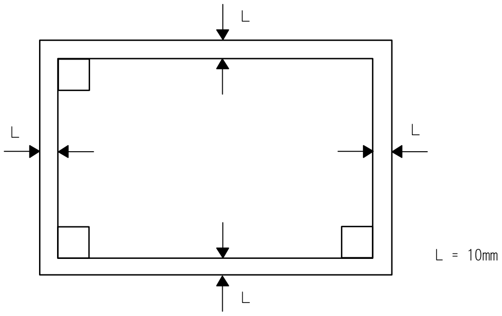




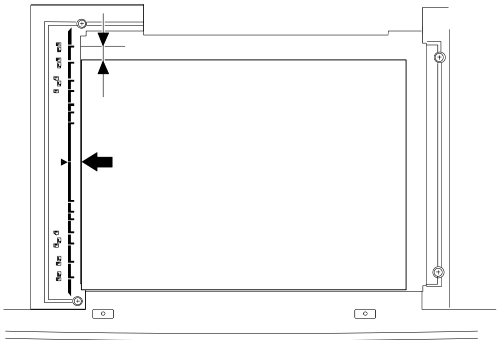


ADJ 2 Image sub scanning direction distortion adjustment

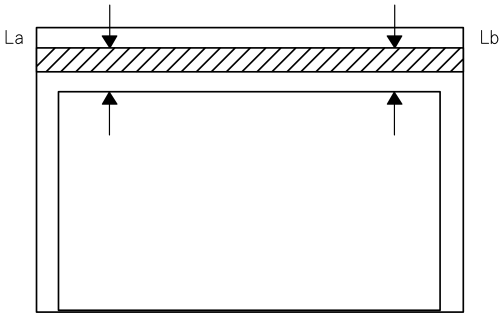
1) Make a test chart on A3 (11 × 17") paper as shown below. (Draw a rectangular with four right angles.)



2) Set the test chart made in procedure 1) on the document table. (Leave a space of about 30mm between the reference position and the test chart. With the document cover open, make a copy on A3 (11 × 17").

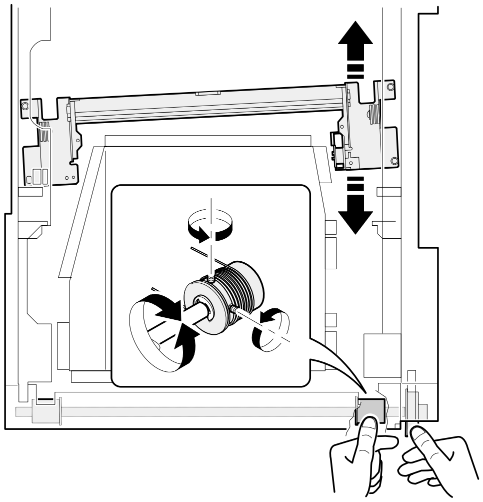


3) Check for distortion in the sub scanning direction.
If La = Lb, there is no distortion.



If there is some distortion in the sub scanning direction, perform the following procedures.

4) Loosen either of two fixing screws of the scanner unit drive pulley. (Either one on the front or the rear side will do.)

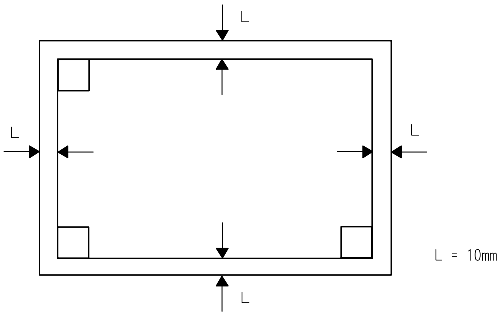


5) With the scanner unit drive shaft kept stationary, turn the scanner unit drive pulley manually to change the parallelism of scanner units A and B. (Change the relative positions of the scanner unit drive pulley and the drive shaft.)

6) Tighten the scanner unit drive pulley fixing screw.
Repeat procedures 2) – 6) until the condition of procedure 3) is satisfied.

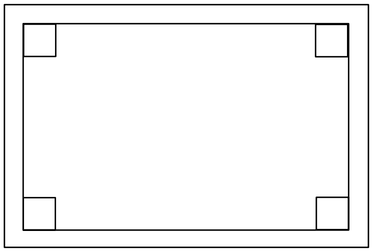
ADJ 3 Image scanning direction distortion adjustment

1) Make a test chart on A3 (11 × 17") paper as shown below. (Draw a rectangle with four right angles.)



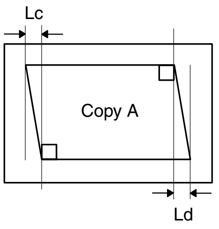
2) Set the test chart made in procedure 1) on the document table. With the document cover open, make a copy on A3 (11 × 17").

3) Check for distortion in the main scanning direction.
If the four angles of the rectangle on the copy are right angles, there is no distortion. (Completion of the adjustment)

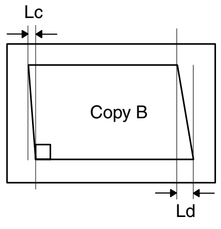


If there is some distortion in the main scanning direction, perform the following procedures

4) Check for a difference between the right distortion and the left distortion (balance).



Left distortion is equal
to right distortion.
Lc = Ld



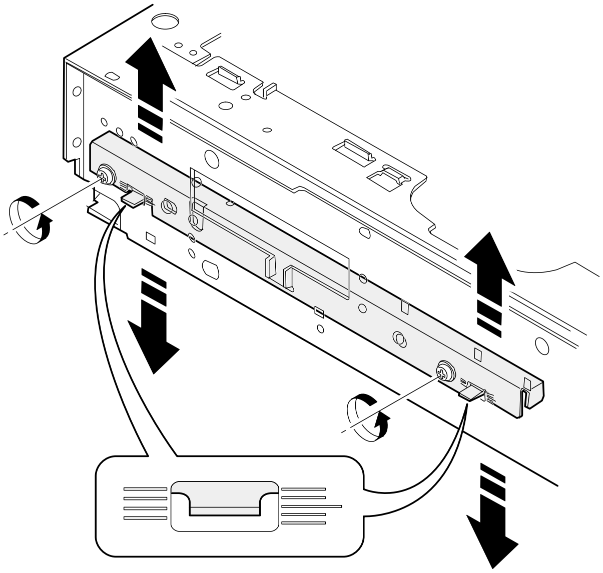
Left distortion is not equal
to right distortion
Lc ≠ Ld

If Lc = Ld, there is no difference between the left distortion and the right distortion.

If the above condition is satisfied, go to procedure 6).

If the above condition is not satisfied, perform the following procedures.

5) Change the height balance of the front frame side scanner rail. Perform procedures 2) – 5) until there is no difference between the left distortion and the right distortion.



6) When there is no difference between the left distortion and the right distortion, change the height of the scanner rail on the front frame side.

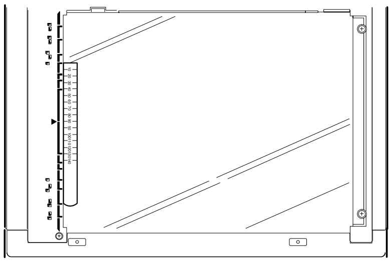
7) Set the test chart made in procedure 1) on the document table, and make a copy on A3 (11 × 17") paper. Check that the main scanning distortion is within the specified range.
Repeat procedures 6) – 7) until the main scanning direction distortion is within the specified range.

ADJ M12 Image focus (main scanning direction copy magnification ratio) adjustment (CCD position adjustment)

This adjustment must be performed in the following cases:

- When the CCD unit is removed from the machine.
- When the CCD unit is replaced.
- When the copy image focus is improper.
- When the copy magnification ratio in the main scanning direction is improper.

1) Enter the SIM 48-1 mode.
2) Set the set item B to 50 (initial value).
3) As shown in the figure below, place a scale on the original table.



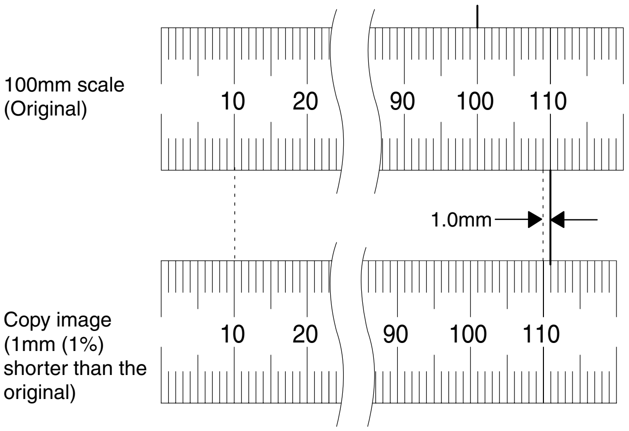
4) Make a normal copy on A4 paper.
5) Compare the scale image length and the actual scale length.
6) Obtain the main scanning direction copy magnification ratio according to the following formula.

Main scanning direction copy magnification ratio

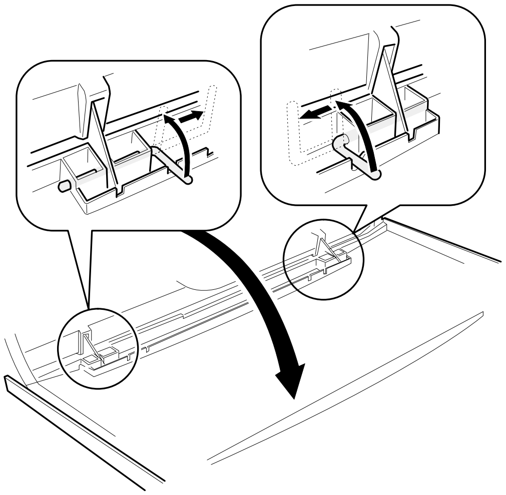
$$= \frac{(\text{Original length} - \text{Copy length})}{\text{Original length}} \times 100\ [\%]$$

(Example) Fit 10mm of the scale with 10mm of the copied scale and compare them.
Main scanning direction copy magnification ration

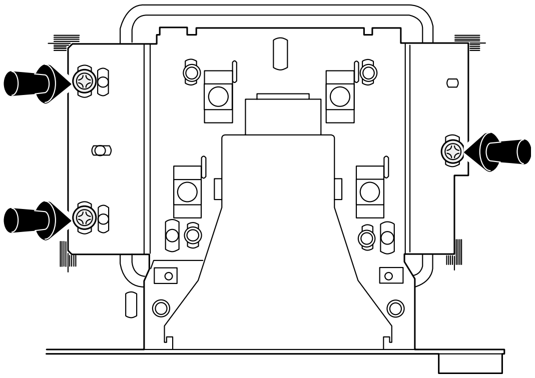
$$= \frac{100 - 99}{100} \times 100 = 1$$



7) Remove the original guide L and R, and remove the table glass.
8) Remove the dark box cover.
9) Remove the slide pin of the front cover unit.

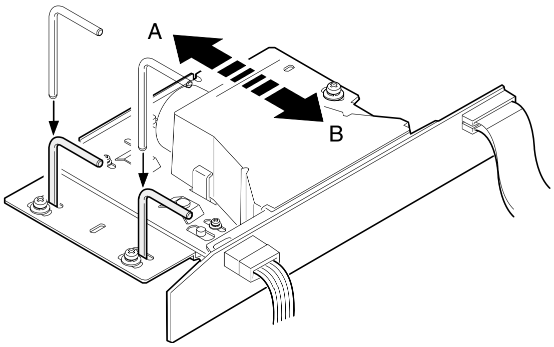


10) Loosen the CCD unit fixing screws.



＊ Never loosen the screws which are not indicated in the figure above. If loosened, the CCD unit must be replaced.

11) Insert the slide pin as shown below, and make positioning in the sub scanning direction. (Initial positioning is completed.)



12) Make a copy in the initial position and check the copy magnification ratio again.

If the copy magnification ratio is not in the range of 100 ± 1%, perform the following procedure.

Repeat procedures 12) and 13) until the copy magnification ratio is within the range of 100 ± 1%.

> When the copy image is longer than the original, move in the direction of B.
> When the copy image is shorter than the original, move in the direction of A.
> One scale of scribe line corresponds to 0.2%.

13) Change the installing position in the CCD sub scanning direction to adjust the magnification ratio.

NOTE: Due to the structure of the optical system, when the CCD unit fixing position is changed with SIM 48-1 set to 50, the copy magnification ratio is adjusted to the specified level (100 ± 1.0%) and the specified resolution is provided.

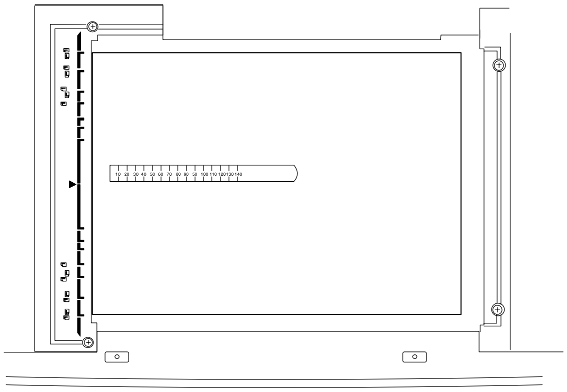
ADJ M13 Sub scanning direction copy magnification ratio adjustment

This adjustment must be performed in the following cases:

- When the copy magnification ratio in the copy image sub scanning direction is improper.
- When the scanner motor is replaced.
- When the scanner motor control PWB is replaced.
- When a U2 trouble occurs.
- When the PCU main PWB is replaced.
- When the EEPROM of the PCU main PWB is replaced.

Before this adjustment, perform the focus adjustment (CCD unit installing position adjustment).

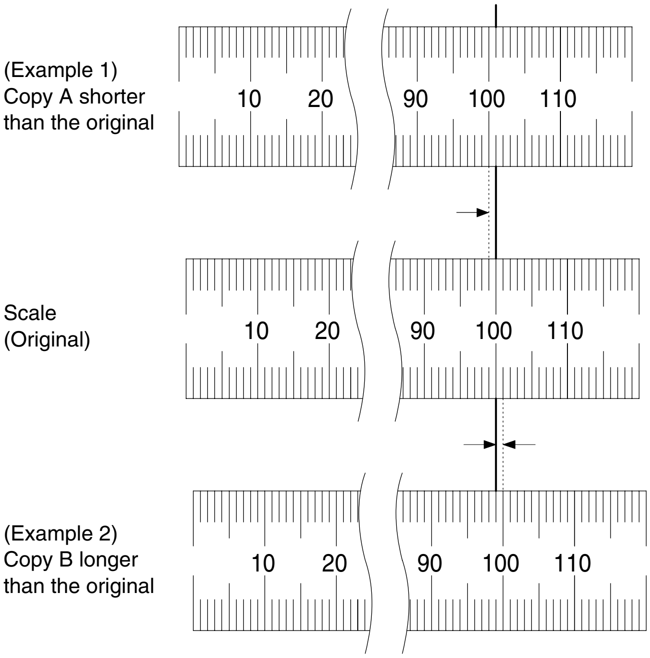
1) Place a scale on the original table as shown below.



2) Enter the SIM 48-1 mode.

3) Make a normal copy and obtain the copy magnification ratios.
Copy magnification ratio

$$= \frac{(\text{Original dimension} - \text{Copy dimension})}{\text{Original dimension}} \times 100\ [\%]$$



4) Check that the copy magnification ratio is within the specified range (100 ± 1%).
If the copy magnification ratio is within the specified range (100 ± 1%), the adjustment is completed.
If not, perform the following procedure.

5) Change the scan mode adjustment value of SIM 48-1.
When the adjustment value is increased, the sub scanning direction copy magnification ratio is increased.
A change in the adjustment value by 1 corresponds to a change in the copy magnification ratio by about 0.1%.
Repeat procedures 3) – 5) until the coy magnification ratio is within the specified range (100 ± 0.28%).

NOTE: Fix the adjustment value of SIM 48-1 adjustment mode (F – R) to 50.

ADJ M14 Image position adjustment (Main scanning direction) (Print engine)

This adjustment must be performed in the following cases:

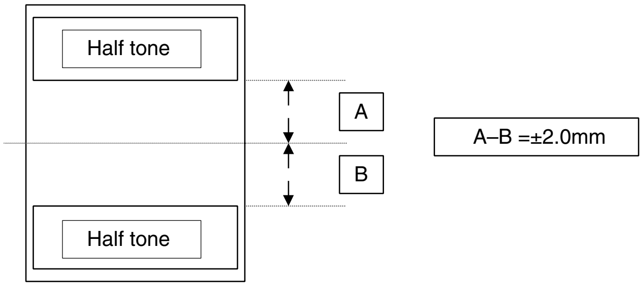
- When the paper tray is replaced.
- When the paper tray section is disassembled.
- When the manual paper feed tray is replaced.
- When the manual paper feed tray is disassembled.
- When the duplex section is disassembled.
- When the duplex section is installed or replaced.
- When the large capacity paper feed tray is installed or replaced.
- When the large capacity paper feed tray is disassembled.
- When a U2 trouble occurs.
- When the PCU main PWB is replaced.
- When the EEPROM of the PCU main PWB is replaced.

1) Enter the SIM 50-10 mode.
2) Select the paper feed mode to be adjusted with the scroll key.
3) Press the [EXECUTE] key.
The adjustment pattern is printed.

4) Check the adjustment pattern image position.
   Measure the dimensions from the paper center to the front and the rear edge of the adjustment pattern to check that they are the same.

   If A – B = ± 2.0mm, there is no need to adjust.

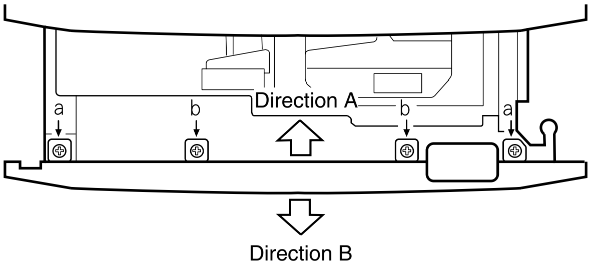
If the above condition is not satisfied, perform the following procedure.



5) Change the adjustment value.
   (Enter the adjustment value and press the [OK] key.)
   When the adjustment value is increased, the image is shifted backward.
   When the adjustment value is decreased, the image is shifted forward.
   A change in the set value by 1 corresponds to a change in the shift by about 0.1mm.

Repeat procedures 3) – 5) until the condition of procedure 4) is satisfied.
If the above condition cannot be satisfied with the above procedures, perform the following procedures.

6) Loosen the paper feed tray cover fixing screw, and shift the installing position in the arrow direction.
   Perform procedures from 2) again.



Perform the above procedures for all paper feed units.

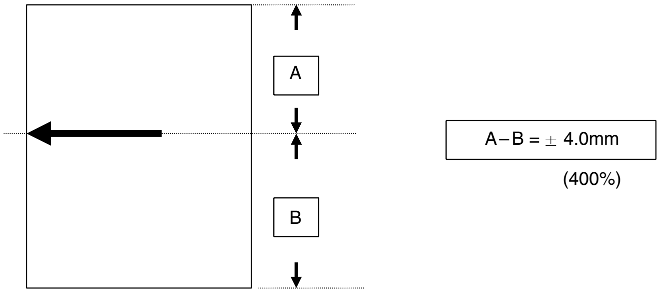
ADJ M15 Image position adjustment (Main scanning direction) (Scanner (Writing))

This adjustment must be performed in the following cases:

- When the scanner (reading) section is disassembled.
- When the scanner (reading) unit is replaced.
- When the RADF section is disassembled.
- When the RADF unit is installed.
- When the RADF unit is replaced.
- When a U2 trouble occurs.
- When the ICU main PWB is replaced.
- When the EEPROM of the ICU main PWB is replaced.

1) Set the adjustment chart on the document table.
2) Enter the SIM 50-12 mode.
   The copy magnification ratio is automatically set to 400%.
3) Select the OC mode with the scroll key.
4) Press the COPY key. A copy is made.
5) Check the copy image center position.
   If A – B = ± 4.0mm, there is no need to adjust. (400%)

   If the above condition is not satisfied, perform the following procedures.



6) Change the adjustment value.
   (Enter the adjustment value and press the OK key.)
   When the adjustment value is increased, the image is shifted backward. When the adjustment value is decreased, the image is shifted forward.
   A change in the set value by 1 corresponds to a change in the shift by about 0.4mm. (400%)

Repeat procedures 4) – 6) until the condition of procedure 5) is satisfied.

ADJ M16 Image position, image loss, void area adjustment

This adjustment must be performed in the following cases:

- When the scanner (reading) section is disassembled.
- When the scanner (reading) unit is replaced.
- When the resist roller section is disassembled.
- When a U2 trouble occurs.
- When the PCU main PWB is replaced.
- When the EEPROM of the PCU main PWB is replaced.

This adjustment uses SIM 50-2 and SIM 50-1.

The above two simulations are used in the following manner.

SIM 50-2: Rough adjustment
SIM 50-1: Fine adjustment

If the desired value is obtained by SIM 50-2, there is no need to perform SIM 50-1.

(Adjustment item)

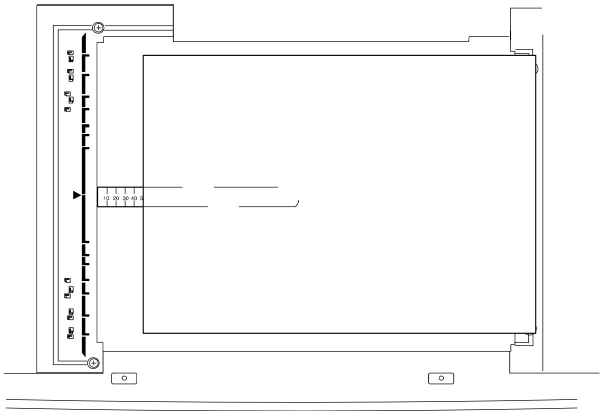
No.	Adjustment item	SIM 50-2 set item	SIM 50-1 set item	Adjustment value
1	Lead edge image loss	IMAGE LOSS	IMAGE LOSS	4.0 ± 1.0mm
2	Lead edge void area	DEN-A	DEN-A	4.0 ± 1.0mm
3	Rear edge void area	DEN-B	DEN-B	6.0 ± 1.0mm
4	Image reference position		RRC-A	
5	Paper timing		RRC-B	
6	Distance between image lead edge position and scale of 10mm × 10	L1		
7	Distance between paper lead edge and image lead edge × 10	L2		

Adjustment items 1 – 3 can be adjusted either with SIM 50-1 or with SIM 50-2.

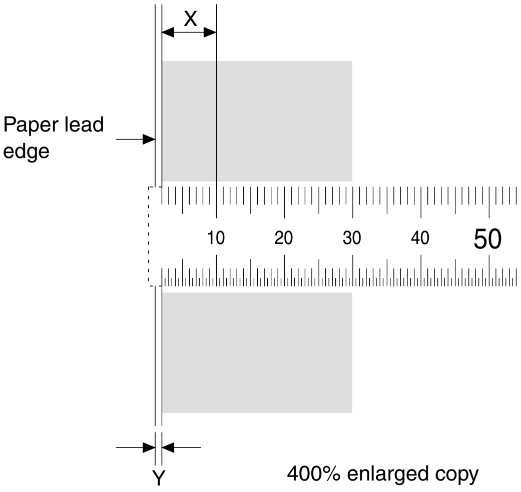
The adjustment values 6 and 7 will affect the adjustment items 4 and 5 automatically.

Therefore, adjusting the items 6 and 7 will lead to the same result as adjusting the items 4 and 5 directly.

1) Place a scale on the original table as shown below.
Note that the scale must be placed in parallel with the scanning direction and that the scale lead edge must be in close contact with the original guide plate.



2) Enter SIM 50-2.
3) Set IMAGE LOSS and DEN-A to "20".
4) Set all the set items of L1 and L2 to "0".
5) Make a copy at 400%. (Original table mode)
6) Measure the copied image dimensions X and Y.
X: Distance between the copy image lead edge and the scale of 10mm
Y: Distance between the paper lead edge and the copy image lead edge.



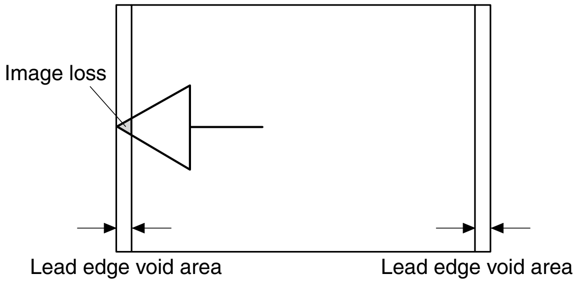
7) Multiply X, Y, and Z by 10 to obtain L1, L2, and L3 respectively. Enter the values of L1, L2, and L3.
L1 = X × 10
L2 = Y × 10
8) Cancel the simulation, make a copy, and check that the lead edge image loss and void area are within the specified range shown below.
Lead edge image loss: 4.0 ± 1.0mm
Lead edge void area: 4.0 ± 1.0mm

If the above specifications are not satisfied, perform the following procedures.

9) Enter SIM 50-1.
10) Set a scale in the same manner as procedure 3), and make a copy at 50% and at 400% in the original table mode.
11) Measure the distance between the paper lead edge and the copy image lead edge of 50% copy and of 400% copy.
12) Check that there is no difference between the above distance of 50% copy and that of 400% copy.
If there is a difference of 1.5mm or above, change the adjustment value of RRC-A.

Repeat procedures 10) to 12) until the above specification is satisfied.

13) If the lead edge void area is not within the specified range, change the DEN-A value.
14) If the lead edge void area is not within the specified range, change the IMAGE LOSS value.
15) If the rear edge void area is not within the specified range, change the DEN-B value.



	Adjustment item	Adjustment value	Note
IMAGE LOSS	Lead edge image loss	4.0 ± 1.0mm	The greater the set value is, the greater the image loss is.
DEN-A	Lead edge void area	4.0 ± 1.0mm	The greater the set value is, the greater the void area is.
DEN-B	Rear edge void area	6.0 ± 1.0mm	The greater the set value is, the greater the void area is.

ADJ M17 Copy quality adjustment

(1) Note before execution of copy quality adjustment

(Necessary conditions for execution of copy quality adjustment)

Before performing color quality adjustment, the following adjustments must have been completed normally, which will affect copy quality.

The importance level is as shown below.

(The following adjustment items directly affect copy quality and should be performed in advance to the copy quality adjustment.)

1) Adjustment items: ADJ M7, ADJ M8, ADJ M9, ADJ M10

ADJUSTMENT ITEM				SIMULATION
ADJ M7	Image skew adjustment (Scanner (Writing) unit)			64-1
				61-4
ADJ M8	Photoconductor phase adjustment			44-20 (Old) 44-31 (New)
ADJ M9	Main scanning direction copy magnification ratio adjustment (Manual adjustment) (Scanner (Writing) unit)	ADJ 1	Main scanning direction copy magnification ratio adjustment (Scanner (Writing) unit) (Black)	50-10
	Main scanning direction image registration adjustment (Manual adjustment) (Scanner (Writing) unit)	ADJ 2	Main scanning direction color image resist adjustment (Scanner (Writing) unit) (Color) Main scanning direction copy magnification ratio adjustment (Scanner (Writing) unit) (Color)	50-20
ADJ M10	Sub scanning direction color image resist adjustment (Manual adjustment) (Scanner (Writing) unit) (Color)			50-21

The user color balance adjustment must be set to the default (center).

WORK ITEM	PURPOSE	NOTE
Default setting for User Color balance adjustment (Special mode)	Set the color balance to the standard state.	Check that it is set to the center.

SIM 26-55 must be set to DISABLE.

SIM No	ITEM	Normal setting (Default)	Phenomenon when set to ENABLE		NOTE
			AR-C150	AR-C250/C160/C270	
26-55	MODE SETUP	DISABLE	Decrease in toner quantity on images (Color shift / degraded sharpness in black characters and black-line images) / Improved fusing capability	Higher image contrast with higher clearness / Lower gradation	Set to DISABLE when adjusting the copy quality.

The set value of SIM 46-27 must be set to the default.

SIM No	ITEM	SPEC		Phenomenon when the set value is changed	Phenomenon when the value is outside the normal value range	NOTE
		AR-C150/C250	AR-C160/C270			
		Default	Default			
46-27	A (Color copy mode)	50	70	When the set value is increased, the black toner quantity on black lines and in black character outline section is decreased. On the other hand, when the set value is decreased, the black toner quantity on black lines and in black character outline section is increased. In Text - Printed Photo/ Text/ Text - Photo copy mode, the black toner quantity on black lines and in black character outline section. (Sharpness of black lines and black characters is changed.)	In Text - Printed Photo/ Text/ Text - Photo copy mode, sharpness or clearness of black lines and black characters is degraded.	Set to 70 when adjusting the copy quality.
	B (Black-and-white copy mode)		50			Set to 50 when adjusting the copy quality.

The set value of the following simulation must be set to the default.

SIM No	ITEM	Normal setting (Default)			Phenomenon when the set value is changed	NOTE
		AR-C150	AR-C250	AR-C160/C270		
46-1	A	50	50	50	The density and color balance in the low density section of color copy are changed.	Set to the default when adjusting the copy quality. Do not adjust the density in the low density section by using this simulation.
	B	50	50	50		
	C	50	50	50		
	D	50	50	50		
	E	50	50	50		
	F		50	50		
	G		46	46		
	H		46	46		
	I		46	46		
46-2	A – O	50	50	50	The density in the low density section of monochrome copy is changed.	
46-10 – 19	A – O	500	500	500	The color copy density and color balance are changed. (each copy mode)	Set to the default when adjusting the copy quality.
46-20	A – O	500	500	500	The color copy density and color balance of all copy modes are changed.	Set to the default when adjusting the copy quality.

All the functions of SIM 44-1 must be set to ENABLE.

SIM No	ITEM	NORMAL SETTING CONDITION	Phenomenon when set to DISABLE		NOTE
44-1	DEVE	ENABLE	Toner concentration correction for developer use frequency is not performed.	Improper copy, toner dispersion, image high density section abnormality, developer dispersion, insufficient image density	All functions must be set to ENABLE.
	HUMID	ENABLE	Process section corrections for change in humidity (toner concentration, transfer voltage, resist roller rotation speed correction) are not performed.	Improper color balance, abnormality, improper copy, toner dispersion, developer dispersion, improper image density, image shift, image flow, image dirt	
	DM POSI	ENABLE	OPC drum phase correction is not performed.	Image color shift, banding	
	HT	ENABLE	Half-tone image density correction is not performed.	Improper half-tone image density, improper copy, improper color balance, tone jump	
	TC	ENABLE	Transfer voltage correction for a change in humidity or paper kind is not performed.	Half-tone image section abnormality, improper image density, low density inside image outline	
	MD	ENABLE	Correction (laser power) for use frequency of OPC drum (change in sensitivity) is not performed.	Insufficient image density	

(The following adjustment items affect copy quality, but there is no need to adjust them frequently. In case of a trouble, however, they should be checked and adjusted.)

1) Adjustment item: ADJ M1, ADJ M2, ADJ M4, ADJ M6

ADJUSTMENT ITEM				SIMULATION
ADJ M1	DV doctor gap adjustment			
ADJ M2	DV roller main pole position adjustment			
ADJ M4	High voltage adjustment	ADJ 1	Main charger grid voltage adjustment	8-2
		ADJ 2	DV bias voltage adjustment	8-1
		ADJ 3	Transfer voltage adjustment	8-6 (Old) 44-30 (New)
ADJ M6	Image density sensor adjustment	ADJ 1	Image density sensor calibration	44-13
		ADJ 2	Image density sensor sensing position adjustment	44-23

(The following adjustment items do not affect copy quality directly.)

1) Adjustment items: ADJ M5, ADJ M11, ADJ M12, ADJ M14, ADJ M15, ADJ M16, ADJ M18, ADJ M19, ADJ M20, ADJ M23, ADJ M24, ADJ M25

(Relationship between servicing contents and copy quality adjustment)

Note that the procedures before and after the copy quality adjustment differ depending on the conditions of the machine and the servicing contents.

Follow the copy quality adjustment procedure flow to perform procedures according to the conditions.

There are following 5 major cases.

1) When installing
2) When performing the periodic maintenance
3) When replacing consumable parts in repair work
4) When not replacing consumable parts in repair/check work
5) When perform in repair/check work

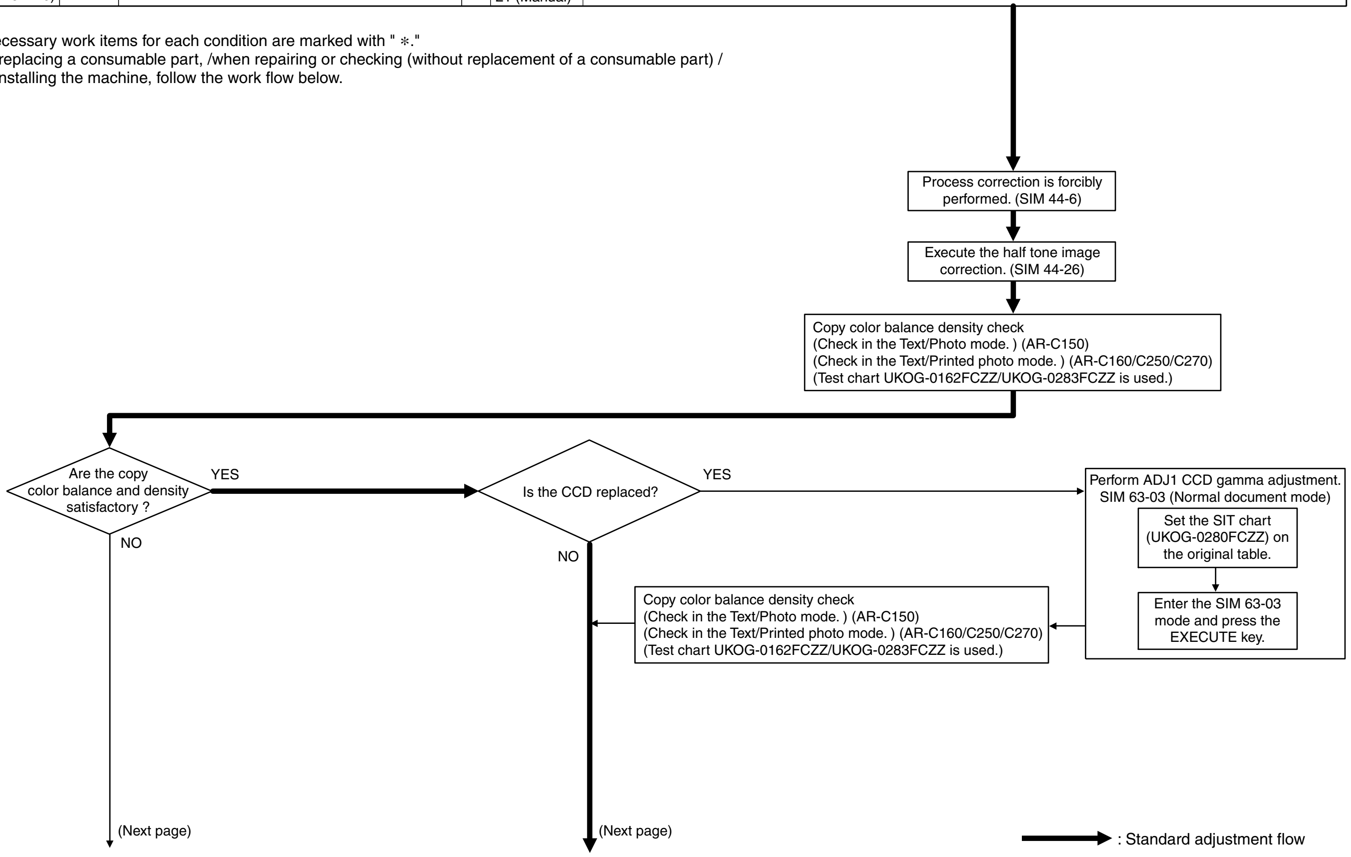
(2) Copy quality adjustment procedure flow

Perform the copy quality adjustment referring to the following work flow.

START

No	JOB No		Work item	Simulation		When installing	Repair (When a consumable part is replaced)/maintenance						When in repair/check (without replacing consumable parts)
							After replacing OPC drum (*1)	After replacing developer (*2)	After replacing transfer belt	After disposing transfer section waste toner	After cleaning scanner (reading) section	When in periodic maintenance	
1	ADJ M3		Toner concentration reference control level setup	25	2	*		*					
2			Developer counter clear	24	5			*					
3			OPC drum counter clear	24	7		*						
4	ADJ M5		Image density sensor adjustment	44	13				*			*	
5	ADJ M6		Image density sensor position adjustment	44	23				*			*	
6	ADJ M7		Image skew adjustment	64	1							*	
7	ADJ M8		OPC drum phase adjustment	44	20 (Old)/31 (New)	*	*						
8			Transfer section waste toner counter clear	24	8					*			
9			Half-tone correction level is set to zero.	44	27		*	*					
10	ADJ M9A (ADJ M9)		Main scan direction image resist adjustment	50	22 (Auto)/ 20 (Manual)	*							
11	ADJ M9A (ADJ M10)		Sub scan direction image resist adjustment	50	22 (Auto)/ 21 (Manual)	*							

The necessary work items for each condition are marked with " *."
When replacing a consumable part, /when repairing or checking (without replacement of a consumable part) /
when installing the machine, follow the work flow below.


Process correction is forcibly performed. (SIM 44-6)

Execute the half tone image correction. (SIM 44-26)

Copy color balance density check
(Check in the Text/Photo mode.) (AR-C150)
(Check in the Text/Printed photo mode.) (AR-C160/C250/C270)
(Test chart UKOG-0162FCZZ/UKOG-0283FCZZ is used.)

Are the copy color balance and density satisfactory ?

Is the CCD replaced?

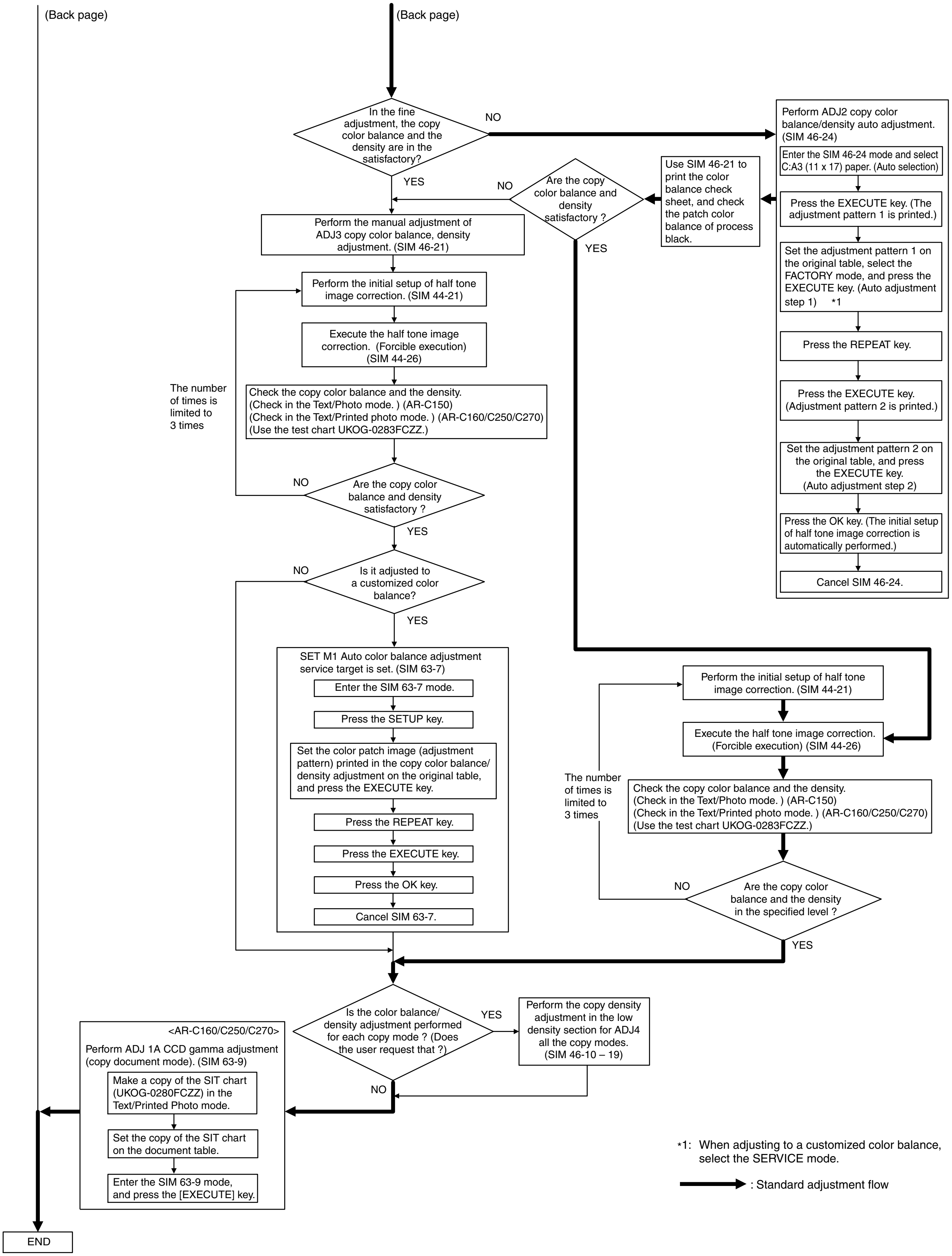
Perform ADJ1 CCD gamma adjustment.
SIM 63-03 (Normal document mode)

Set the SIT chart (UKOG-0280FCZZ) on the original table.

Enter the SIM 63-03 mode and press the EXECUTE key.

Copy color balance density check
(Check in the Text/Photo mode.) (AR-C150)
(Check in the Text/Printed photo mode.) (AR-C160/C250/C270)
(Test chart UKOG-0162FCZZ/UKOG-0283FCZZ is used.)

: Standard adjustment flow


(Back page)
(Back page)
In the fine adjustment, the copy color balance and the density are in the satisfactory?
NO
YES
Perform ADJ2 copy color balance/density auto adjustment. (SIM 46-24)
Enter the SIM 46-24 mode and select C:A3 (11 x 17) paper. (Auto selection)
Press the EXECUTE key. (The adjustment pattern 1 is printed.)
Set the adjustment pattern 1 on the original table, select the FACTORY mode, and press the EXECUTE key. (Auto adjustment step 1) *1
Press the REPEAT key.
Press the EXECUTE key. (Adjustment pattern 2 is printed.)
Set the adjustment pattern 2 on the original table, and press the EXECUTE key. (Auto adjustment step 2)
Press the OK key. (The initial setup of half tone image correction is automatically performed.)
Cancel SIM 46-24.
Use SIM 46-21 to print the color balance check sheet, and check the patch color balance of process black.
Are the copy color balance and density satisfactory ?
NO
YES
Perform the manual adjustment of ADJ3 copy color balance, density adjustment. (SIM 46-21)
Perform the initial setup of half tone image correction. (SIM 44-21)
Execute the half tone image correction. (Forcible execution) (SIM 44-26)
The number of times is limited to 3 times
Check the copy color balance and the density. (Check in the Text/Photo mode.) (AR-C150) (Check in the Text/Printed photo mode.) (AR-C160/C250/C270) (Use the test chart UKOG-0283FCZZ.)
NO
Are the copy color balance and density satisfactory ?
YES
NO
Is it adjusted to a customized color balance?
YES
SET M1 Auto color balance adjustment service target is set. (SIM 63-7)
Enter the SIM 63-7 mode.
Press the SETUP key.
Set the color patch image (adjustment pattern) printed in the copy color balance/ density adjustment on the original table, and press the EXECUTE key.
Press the REPEAT key.
Press the EXECUTE key.
Press the OK key.
Cancel SIM 63-7.
Perform the initial setup of half tone image correction. (SIM 44-21)
Execute the half tone image correction. (Forcible execution) (SIM 44-26)
The number of times is limited to 3 times
Check the copy color balance and the density. (Check in the Text/Photo mode.) (AR-C150) (Check in the Text/Printed photo mode.) (AR-C160/C250/C270) (Use the test chart UKOG-0283FCZZ.)
NO
Are the copy color balance and the density in the specified level ?
YES
Is the color balance/ density adjustment performed for each copy mode ? (Does the user request that ?)
YES
Perform the copy density adjustment in the low density section for ADJ4 all the copy modes. (SIM 46-10 – 19)
NO
<AR-C160/C250/C270>
Perform ADJ 1A CCD gamma adjustment (copy document mode). (SIM 63-9)
Make a copy of the SIT chart (UKOG-0280FCZZ) in the Text/Printed Photo mode.
Set the copy of the SIT chart on the document table.
Enter the SIM 63-9 mode, and press the [EXECUTE] key.
END

*1: When adjusting to a customized color balance, select the SERVICE mode.

➡ : Standard adjustment flow

Copy color balance and density check

Check the color balance and the density by making copies of Sharp gray chart and the serviceman chart.

a. Note for the copy color balance check

To check the copy color balance and the density, use Sharp gray chart and the serviceman chart and set the copy density in the Text/Printed Photo mode (AR-C160/C250/C270) Text/Photo mode (AR-C150) to Manual 3 and make a copy in the color mode and in the black and-white mode.

At that time, all the color balance adjustments of the user adjustment mode must be set to the default (center).

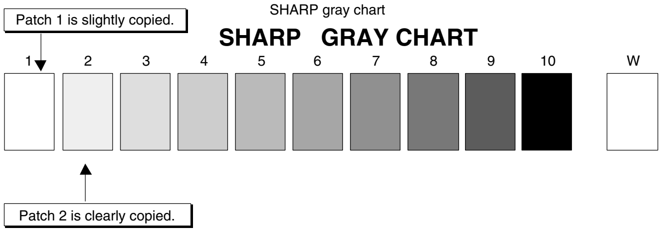
Be sure to use the specified paper for color.

[Sharp gray chart]

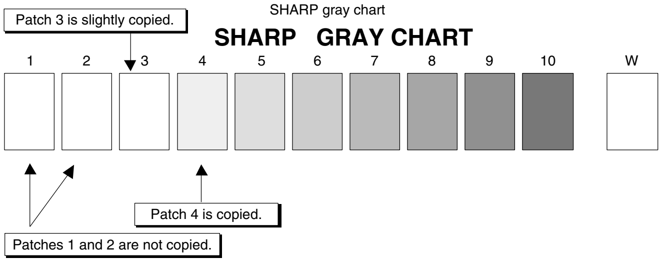
The copy image density of Sharp gray chart must be as follows:

NOTE: Use the color test chart (UKOG-0283FCZZ) to check the color balance.

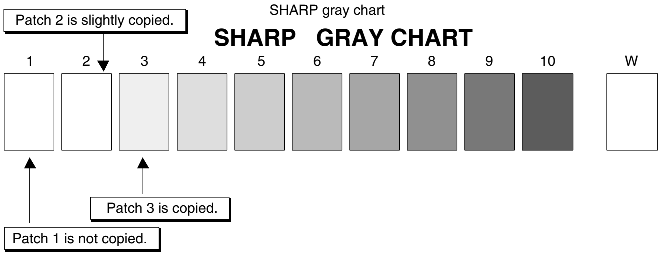
(Color copy) <AR-C150/C250/C160/C270>


Patch 1 is slightly copied.
SHARP gray chart
SHARP GRAY CHART
1
2
3
4
5
6
7
8
9
10
W
Patch 2 is clearly copied.

(Black-and-white copy) <AR-C150>


Patch 3 is slightly copied.
SHARP gray chart
SHARP GRAY CHART
1
2
3
4
5
6
7
8
9
10
W
Patch 4 is copied.
Patches 1 and 2 are not copied.

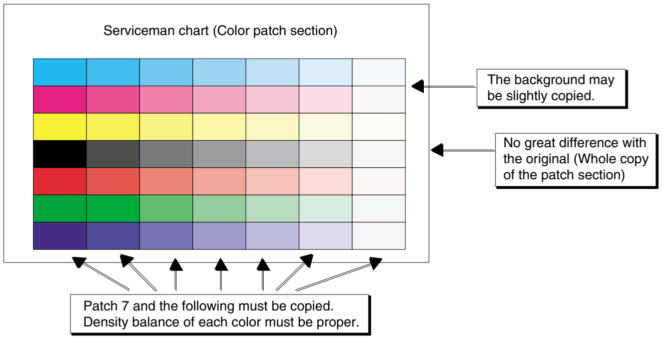
<AR-C250/C160/C270>


Patch 2 is slightly copied.
SHARP gray chart
SHARP GRAY CHART
1
2
3
4
5
6
7
8
9
10
W
Patch 3 is copied.
Patch 1 is not copied.

[Serviceman chart (UKOG-0283FCZZ)]

Check the color balance of Serviceman chart copy is as shown below.

(Color copy) <AR-C150/C160/C250/C270>


Serviceman chart (Color patch section)
The background may be slightly copied.
No great difference with the original (Whole copy of the patch section)
Patch 7 and the following must be copied.
Density balance of each color must be proper.

ADJ 1 CCD gamma adjustment (CCD calibration) (Normal document mode) (AR-C150/C160/C250/C270)

This adjustment must be performed in the following cases:

- When the CCD unit is replaced.
- When a U2 trouble occurs.
- When the PCU main PWB is replaced.
- When the EEPROM of the PCU main PWB is replaced.
- When replacing a part in the scanner (reading) section.

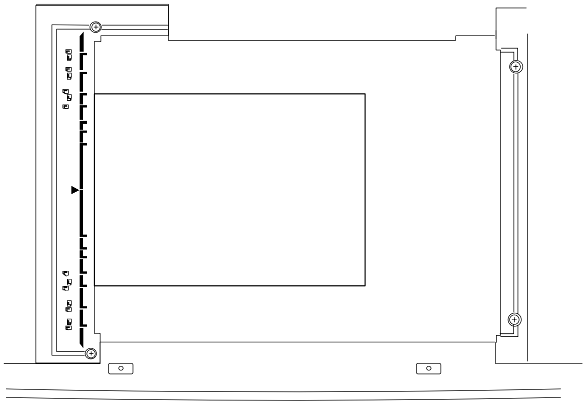
When the CCD unit is replaced, be sure to perform this adjustment.

(1) Precautions for adjustment

1) Check that the table glass and No. 1, 2, 3 mirrors and lenses are free from dust and dirt. (If there is dust and dirt, clean with alcohol.)
2) Check that there is no dirt or scratch on BK1 and BK2 patches of SIT chart (UKOG-0280FCZZ).
   If there is dirt, clean with alcohol.
   If there is scratch, replace the chart with new one.

(2) Adjustment procedures

1) Set the SIT chart (UKOG-0280FCZZ) to the left edge of the original table, and fit the center of SIT chart with the center of the glass holder.



When SIT chart is not available, execute SIM 63-5 to set the CCD gamma to the default. This method, however, provides a lower adjustment accuracy than the method by using SIT chart.

NOTE: Check that the SIT chart (UKOG-0280FCZZ) is closely placed on the original table.

2) With the SIT chart fixed, close the original cover.
3) Enter the SIM 63-03 mode, and press the [EXECUTE] key.
   The automatic adjustment is started. During the automatic adjustment, the [EXECUTE] key is highlighted. When the adjustment is completed, the key returns to the normal display.

NOTE: The SIT chart (UKOG-0280FCZZ) is affected by light (especially by ultraviolet rays) and temperature and humidity. Put it in a bag (clear file, etc.) and store in a dark place.

ADJ 2 Copy color balance adjustment (Auto)

This adjustment must be performed in the following cases:

- When a consumable part (developer, OPC drum, the transfer belt) is replaced.
- When the CCD unit is replaced.
- When a U2 trouble occurs.
- When the ICU main PWB is replaced.
- When the EEPROM of the ICU main PWB is replaced.

a. Outline

The color balance adjustment (auto adjustment) is the automatic adjustment of cyan, magenta, yellow, and black copy density with SIM 46-24.

(There are following two modes of auto color balance adjustment.)

1) Auto color balance adjustment by the serviceman (with SIM 46-24)
2) Auto color balance adjustment by the user (with the user program) (The color balance target becomes the service target.)

The auto color balance adjustment by the user is provided in order to reduce the number of service calls.

If the copy color balance is shifted by some reason, the user performs the color balance adjustment to correct it.

If, however, there is a basic problem in the machine, or if the machine environment is changed largely, this function does not serve as an effective means.

While the automatic color balance adjustment by the serviceman allows adjustment even when the machine environment is changed largely, providing normal color balance. If there is a basic problem in the machine, repair it and adjust to provide normal color balance.

The above points must be fully understood for proper operation.

When this adjustment is performed, the color balance adjustment of all the copy modes are changed.

(However, the color balance adjustment level of the user program is not changed.)

b. Note for performing the color balance adjustment (Auto adjustment)

1) The print engine section must be properly adjusted. (ADJ M1 – M16)
2) CCD gamma adjustment must be properly adjusted. (ADJ M17/ADJ 1)
3) When setting the color patch image (adjustment pattern) paper on the original table, place 5 sheets of white paper on the color patch image paper.
4) Be sure to use the specified color paper.

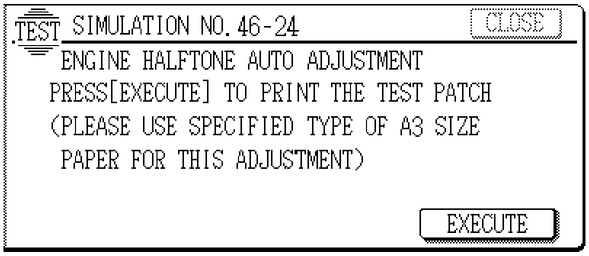
Before execution of the copy quality check and the copy quality adjustment, be sure to execute the following corrections forcibly to set the image forming section to the optimum state.

- Execute the process correction forcibly. (SIM 44-6)
- Execute the half-tone image correction forcibly. (SIM 44-26)

c. Adjustment procedure

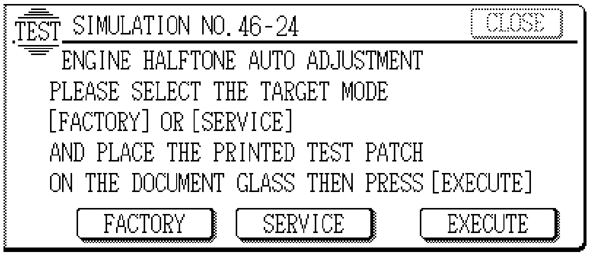
(Auto color balance adjustment by the serviceman)

1) Enter the SIM 46-24 mode.



SIMULATION NO. 46-24
ENGINE HALFTONE AUTO ADJUSTMENT
PRESS[EXECUTE] TO PRINT THE TEST PATCH
(PLEASE USE SPECIFIED TYPE OF A3 SIZE
PAPER FOR THIS ADJUSTMENT)

2) Select A3 or 11 × 17 paper (auto select) and press the EXECUTE key.
The color patch image (adjustment pattern) is printed.
3) Set the color patch image (adjustment pattern) printed in procedure 2) on the original table so that the dark density side of the color patch image comes to the left side. Place 5 sheets of white paper on the color patch image (adjustment pattern) paper.
4) Press the FACTORY key on the operation panel and press the EXECUTE key.
The copy color balance adjustment (step 1) is automatically performed, and the color balance check patch image is printed. Wait for a while until the operation menu of procedure 5) is displayed.
When the color balance is customized by the manual color balance (SIM 46-21) according to the user's request and then the color balance is registered as the service target by SIM 63-7, select the service target in order to adjust to that color balance.



SIMULATION NO. 46-24
ENGINE HALFTONE AUTO ADJUSTMENT
PLEASE SELECT THE TARGET MODE
[FACTORY] OR [SERVICE]
AND PLACE THE PRINTED TEST PATCH
ON THE DOCUMENT GLASS THEN PRESS [EXECUTE]

NOTE: (Descriptions on the factory and the service key button in the color balance automatic adjustment menu)

There are two kinds of gamma targets for the color balance automatic adjustment: factory and service. The factory key button and the service key button are used to select between them.

Factory target gamma: Standard color balance (Fixed)

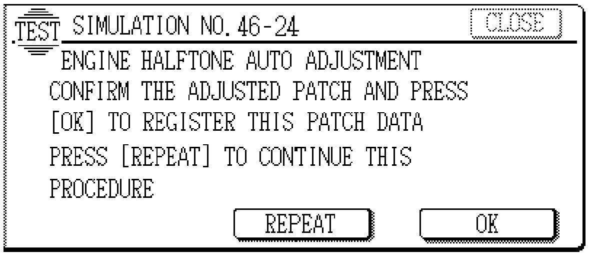
Service target gamma: Color balance can be customized according to the user request. (Variable)

When shipping from the factory, the service target gamma data are same as the factory target gamma data.

Both are set to the standard color balance gamma.

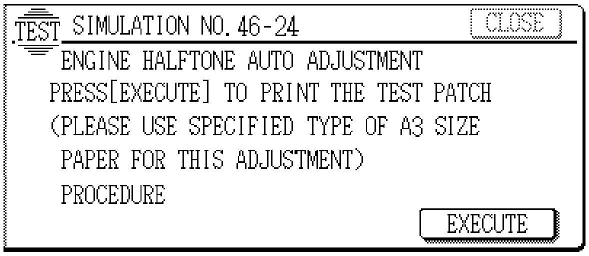
In the service target, a customized color balance can be registered with SIM 63-7. In the factory target, it cannot be changed.

5) Press the REPEAT key on the operation panel.



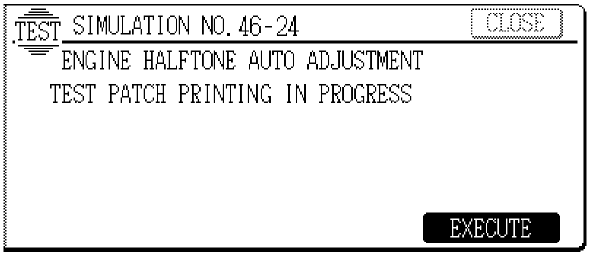
SIMULATION NO. 46-24
ENGINE HALFTONE AUTO ADJUSTMENT
CONFIRM THE ADJUSTED PATCH AND PRESS
[OK] TO REGISTER THIS PATCH DATA
PRESS [REPEAT] TO CONTINUE THIS
PROCEDURE

6) Press the EXECUTE key.
The color patch image (adjustment pattern) is printed.



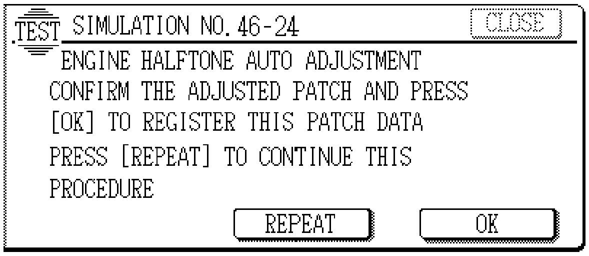
SIMULATION NO. 46-24
ENGINE HALFTONE AUTO ADJUSTMENT
PRESS[EXECUTE] TO PRINT THE TEST PATCH
(PLEASE USE SPECIFIED TYPE OF A3 SIZE
PAPER FOR THIS ADJUSTMENT)
PROCEDURE

7) Set the color patch image (adjustment pattern) printed in procedure 6) on the original table so that the darker density side comes to the left side. Place 5 sheets of white paper on the color patch image (adjustment pattern) paper.
8) Press the EXECUTE key.
The copy color balance adjustment (step 2) is automatically performed, and the color balance check patch image is printed.
Wait for a while until the operation menu of procedure 9) is displayed.



SIMULATION NO. 46-24
ENGINE HALFTONE AUTO ADJUSTMENT
TEST PATCH PRINTING IN PROGRESS

9) Press the OK key on the operation panel.
The initial setup of half tone image correction is performed according to this adjustment data.



TEST SIMULATION NO. 46-24 CLOSE

ENGINE HALFTONE AUTO ADJUSTMENT

CONFIRM THE ADJUSTED PATCH AND PRESS [OK] TO REGISTER THIS PATCH DATA

PRESS [REPEAT] TO CONTINUE THIS PROCEDURE

REPEAT OK

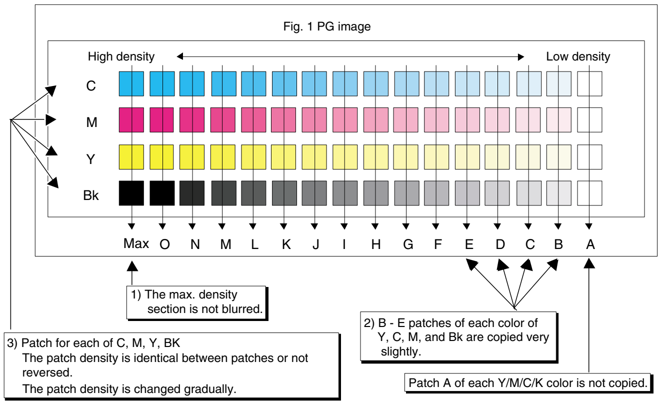
NOTE: When OK key is pressed, initial setup of half-tone image correction is started. During this operation, "Copy Quality is being adjusted" is displayed. It takes several minutes to complete this operation.

After completion of this operation, "Please quit this mode" is displayed.

Do not cancel the simulation until "Please quit this mode" is displayed.

10) Check that the color balance check patch image printed at last is within the specified range shown below.

Fig. 1 PG image



1) The max. density section is not blurred.

2) B - E patches of each color of Y, C, M, and Bk are copied very slightly.

3) Patch for each of C, M, Y, BK
The patch density is identical between patches or not reversed.
The patch density is changed gradually.

Patch A of each Y/M/C/K color is not copied.

The print density should vary gradually from the lower density to the higher density without reversion of changing direction.

The density level of each color should be almost the same.

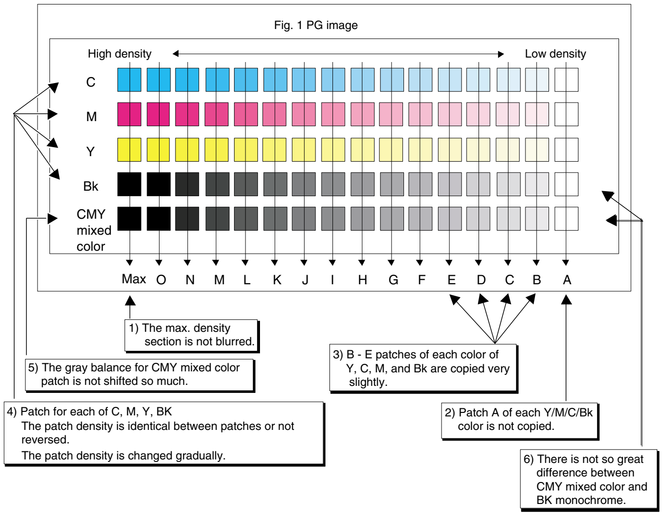
It is acceptable for patch B not to be copied.

Patch A is not copied.

Use SIM 46-21 to print the color balance adjustment sheet and compare each process (CMY) black patch color balance and the black patch. This allows a correct check on the color balance adjustment result.

If the color balance of each process (CMY) black patch in A – O is near the black patch referring to the patch patch, it is judged that the color balance has been correctly adjusted.

Fig. 1 PG image



1) The max. density section is not blurred.

5) The gray balance for CMY mixed color patch is not shifted so much.

3) B - E patches of each color of Y, C, M, and Bk are copied very slightly.

4) Patch for each of C, M, Y, BK
The patch density is identical between patches or not reversed.
The patch density is changed gradually.

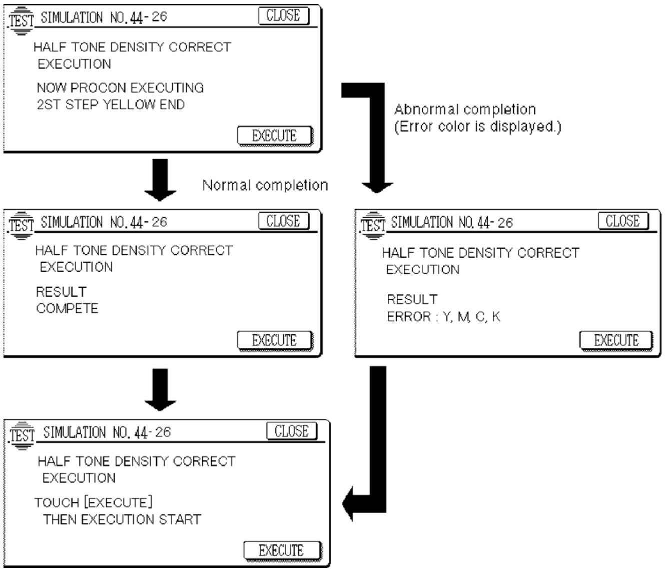
2) Patch A of each Y/M/C/Bk color is not copied.

6) There is not so great difference between CMY mixed color and BK monochrome.

If, however, the user requests to customize the color balance instead of using the standard color balance and the color balance is in a satisfactory level, go to Step 11).

If the color balance is not satisfactory, perform the manual color balance adjustment (ADJ M17/ADJ 3).

11) Execute the half tone image correction. (Forcible execution) (SIM 44-26)



TEST SIMULATION NO. 44-26 CLOSE
HALF TONE DENSITY CORRECT EXECUTION
NOW PROCON EXECUTING
2ST STEP YELLOW END
EXECUTE

TEST SIMULATION NO. 44-26 CLOSE
HALF TONE DENSITY CORRECT EXECUTION
RESULT
COMPETE
EXECUTE

TEST SIMULATION NO. 44-26 CLOSE
HALF TONE DENSITY CORRECT EXECUTION
RESULT
ERROR : Y, M, C, K
EXECUTE

TEST SIMULATION NO. 44-26 CLOSE
HALF TONE DENSITY CORRECT EXECUTION
TOUCH [EXECUTE]
THEN EXECUTION START
EXECUTE

When EXECUTE key is pressed, it is highlighted and the operation is started. It takes several minutes to complete the operation. When the operation is completed, the screen returns to the original state.

After completion of the operation, cancel the simulation.

12) Use the test chart UKOG-0283FCZZ and check the copy color balance and the density in Text/Photo mode. (Refer to the section of the copy color balance and the density.)

If the copy color balance and density are not in the satisfactory level, perform the following procedures.

13) Perform initial setup of half tone image correction. (SIM 44-21)

14) Perform half tone image correction. (Forcible execution) (SIM 44-26)

15) Use the test chart UKOG-0283FCZZ and check the copy color balance and the density in Text/Photo mode (AR-C150) Text/Printed photo mode (AR-C250/C160/C270). (Refer to the section of the copy color balance and the density.)

Repeat procedures 13) – 15) until they are at the satisfactory level.

However, repetition is limited to three times.

If repetition of the above procedures does not set the copy color balance and the density to the specified level, there may be some other reason.

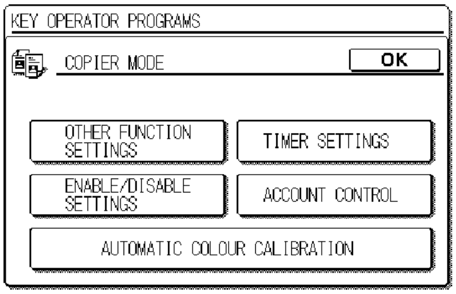
Investigate the reason and repair or fix the problem, then perform all the procedures of print quality adjustment from the beginning.

If the above conditions are not satisfied, perform the manual adjustment (SIM 46-21) (ADJ M17/ADJ 3).

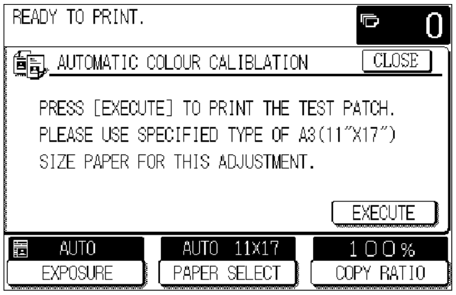
(Auto color calibration by the user (Auto color balance adjustment))

NOTE: This adjustment is based on the service target color balance set with SIM 63-7 or 63-8. If, therefore, the above simulation is not completed normally, this adjustment will not be completed normally.

1) Enter the user program mode.
2) Enter the copy mode.
3) Press the auto color calibration key.


KEY OPERATOR PROGRAMS
COPIER MODE
OK
OTHER FUNCTION SETTINGS
TIMER SETTINGS
ENABLE/DISABLE SETTINGS
ACCOUNT CONTROL
AUTOMATIC COLOUR CALIBRATION

4) Press the EXECUTE key.

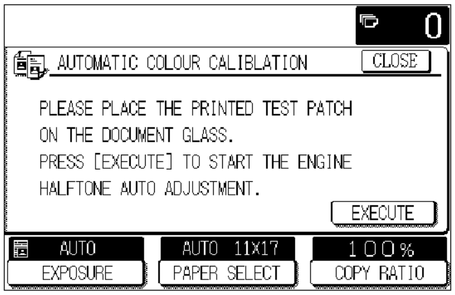

READY TO PRINT.
0
AUTOMATIC COLOUR CALIBLATION
CLOSE
EXECUTE
AUTO
EXPOSURE
AUTO 11X17
PAPER SELECT
100%
COPY RATIO

PRESS [EXECUTE] TO PRINT THE TEST PATCH.
PLEASE USE SPECIFIED TYPE OF A3(11"X17")
SIZE PAPER FOR THIS ADJUSTMENT.

The color patch image (adjustment pattern) is printed.

5) Set the color patch image (adjustment pattern) printed in procedure 4) on the original table so that the darker density side comes to the left side. Place 5 sheets of white paper on the color patch image (adjustment pattern) paper.

6) Press the EXECUTE key.
   The copy color balance adjustment (step 2) is automatically performed. After completion of the adjustment, the display returns to the original menu.


0
AUTOMATIC COLOUR CALIBLATION
CLOSE
EXECUTE
AUTO
EXPOSURE
AUTO 11X17
PAPER SELECT
100%
COPY RATIO

PLEASE PLACE THE PRINTED TEST PATCH
ON THE DOCUMENT GLASS.
PRESS [EXECUTE] TO START THE ENGINE
HALFTONE AUTO ADJUSTMENT.

ADJ 3 Copy color balance adjustment (Manual)

This adjustment must be performed in the following cases:

- When a consumable part (developer, OPC drum, the transfer belt) is replaced.
- When the CCD unit is replaced.
- When the scanner (reading) section is cleaned.
- When a U2 trouble occurs.
- When the ICU main PWB is replaced.
- When the EEPROM of the ICU main PWB is replaced.

The color balance adjustment (Manual) is used to manually adjust each color copy density (C, Y, M, K) (15 points for each color) when the result of the previous automatic adjustment is unsatisfactory or when a fine adjustment is required, or when the user requests to change (customize) the color balance.

a. Note for the adjustment

This adjustment is performed only for the color patch whose result of the previous automatic adjustment is unsatisfactory.

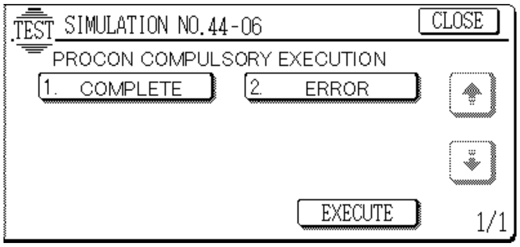
If the color balance is out of the normal conditions, execute SIM 46-24 to make the color balance adjustment (Manual) and then execute this adjustment. This sequence leads to a better work efficiency.

Before execution of the copy quality check and the copy quality adjustment, be sure to execute the following corrections forcibly to set the image forming section to the optimum state.

- Execute the process correction forcibly. (SIM 44-6)
- Execute the half-tone image correction forcibly. (SIM 44-26)

b. Adjustment procedures

* Before executing the copy color balance adjustment (Manual), perform SIM 44-6 to make a compulsory process correction, updating the developing bias voltage and the main charger voltage to the latest levels.

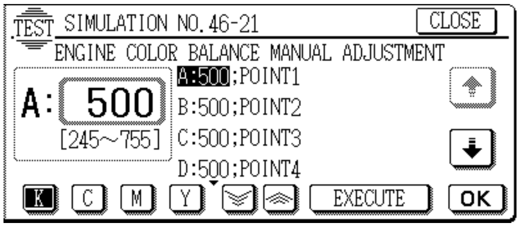

TEST
SIMULATION NO.44-06
CLOSE
PROCON COMPULSORY EXECUTION
1. COMPLETE
2. ERROR
EXECUTE
1/1

When EXECUTE key is pressed, the operation is started.

It takes several minutes to complete the operation. When the operation is completed, "COMPLETE" is highlighted.

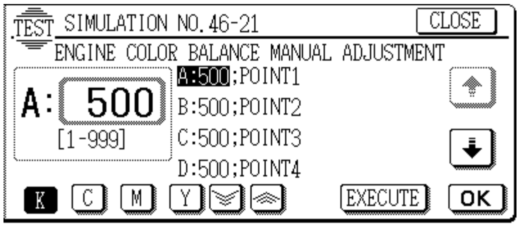
After completion of the operation, cancel the simulation.

1) Enter the SIM 46-21 mode.
   (AR-C150/C250)


TEST
SIMULATION NO.46-21
CLOSE
ENGINE COLOR BALANCE MANUAL ADJUSTMENT
A:500;POINT1
B:500;POINT2
C:500;POINT3
D:500;POINT4
K
C
M
Y
EXECUTE
OK

A: 500
[245~755]

(AR-C160/C270)


TEST
SIMULATION NO.46-21
CLOSE
ENGINE COLOR BALANCE MANUAL ADJUSTMENT
A:500;POINT1
B:500;POINT2
C:500;POINT3
D:500;POINT4
K
C
M
Y
EXECUTE
OK

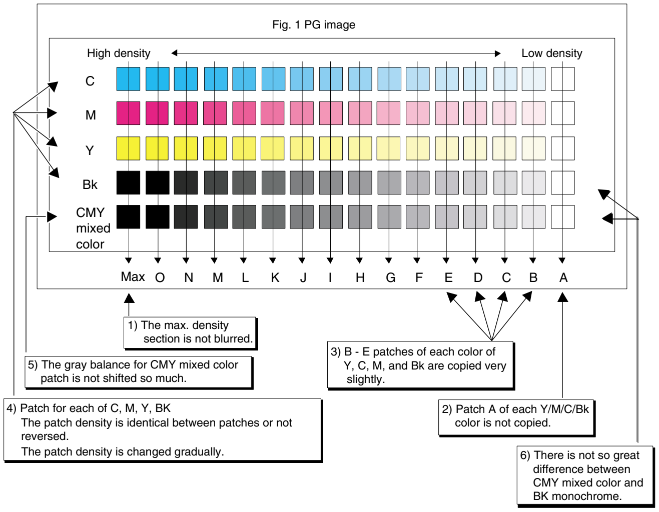
A: 500
[1-999]

2) Select PAPER SEL with the scroll key and select A3 (11 × 17) paper.
   Enter the set value corresponding to the paper feed section with A3 (11 × 17) paper in it, and press the OK key.

3) Press the [EXECUTE] key.
   The color balance adjustment pattern is printed.

4) Check that the printed pattern is in the following specification or in the desired color balance.
   If not, perform the following procedures.

Fig. 1 PG image


High density
Low density
C
M
Y
Bk
CMY mixed color
Max
O
N
M
L
K
J
I
H
G
F
E
D
C
B
A

1) The max. density section is not blurred.

5) The gray balance for CMY mixed color patch is not shifted so much.

3) B - E patches of each color of Y, C, M, and Bk are copied very slightly.

4) Patch for each of C, M, Y, BK
The patch density is identical between patches or not reversed.
The patch density is changed gradually.

2) Patch A of each Y/M/C/Bk color is not copied.

6) There is not so great difference between CMY mixed color and BK monochrome.

The print density should vary gradually from the lower density to the higher density without reversion of changing direction.

The density level of each color should be almost the same.

It is acceptable for patch B not to be copied.

Patch A is not copied.

When, however, the color balance is adjusted according to the user's request, there is no need to adjust to the standard color balance as stated above.

5) Select the color to be adjusted and select the adjustment point with the scroll key.
6) Enter the adjustment value with the 10-key and press the OK key.
   The adjustment value can be selected in the range of 245 – 755 (1 – 999). When SIM 46-24 is used to perform the automatic color balance and the density adjustment, all the set values of this simulation are set to 500.
   To increase the density, increase the adjustment value. To decrease the density, decease the adjustment value.

Repeat procedures 3) – 6) until the condition of procedure 4) is satisfied.

When the overall density is low or patch A is copied with a high density, use the arrow keys to change all the adjustment values of A - 0 simultaneously and uniformly.

Then perform the patch density adjustment. This allows to make an efficient adjustment.

By using the black patch as the reference, adjust so that the color balance of the black patch of each process (CMY) in A - 0 becomes virtually same as the black patch.

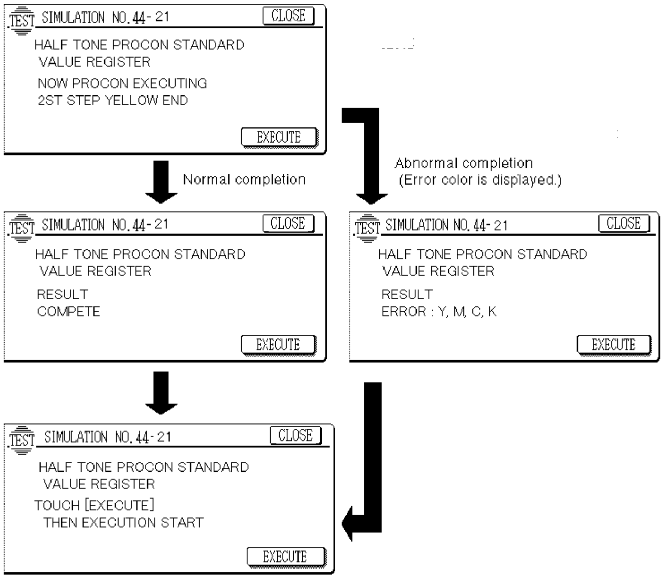
In this simulation mode, press CLEAR key to return to the normal copy mode and make actual copies of the service chart and user documents. Check the adjustment result.

7) Execute SIM 44-21.
   The initial setup of half tone image correction is performed.

This procedure is to store the copy color balance adjustment data as the reference data for half-tone correction.

This procedure should be always executed immediately after completion of ADJ M17/ADJ 3 (Color balance adjustment (Manual)) with SIM 46-21.

When ADJ M17/ADJ2 (Color balance adjustment (Auto)) is performed with SIM 46-24, this procedure is automatically performed.



SIMULATION NO.44-21
HALF TONE PROCON STANDARD
VALUE REGISTER
NOW PROCON EXECUTING
2ST STEP YELLOW END

SIMULATION NO.44-21
HALF TONE PROCON STANDARD
VALUE REGISTER
RESULT
COMPETE

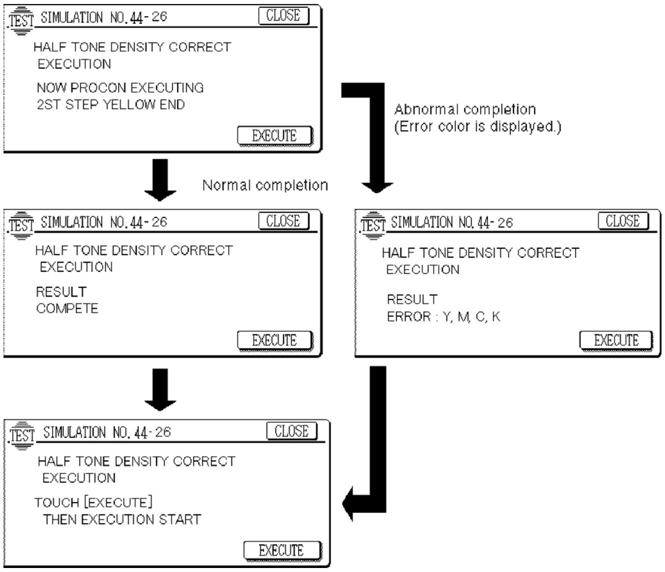
SIMULATION NO.44-21
HALF TONE PROCON STANDARD
VALUE REGISTER
RESULT
ERROR : Y, M, C, K

SIMULATION NO.44-21
HALF TONE PROCON STANDARD
VALUE REGISTER
TOUCH [EXECUTE]
THEN EXECUTION START

When EXECUTE key is pressed, it is highlighted and the operation is started.

It takes several minutes to complete the operation. When the operation is completed, the screen returns to the original state. After completion of the operation, cancel the simulation.

8) Execute the half tone image correction. (Forcible execution) (SIM 44-26)



SIMULATION NO.44-26
HALF TONE DENSITY CORRECT
EXECUTION
NOW PROCON EXECUTING
2ST STEP YELLOW END

SIMULATION NO.44-26
HALF TONE DENSITY CORRECT
EXECUTION
RESULT
COMPETE

SIMULATION NO.44-26
HALF TONE DENSITY CORRECT
EXECUTION
RESULT
ERROR : Y, M, C, K

SIMULATION NO.44-26
HALF TONE DENSITY CORRECT
EXECUTION
TOUCH [EXECUTE]
THEN EXECUTION START

When EXECUTE key is pressed, it is highlighted and the operation is started. It takes several minutes to complete the operation. When the operation is completed, the screen returns to the original state.

After completion of the operation, cancel the simulation.

9) Use the test chart UKOG-0283FCZZ and check the copy color balance and the density in the Text/Photo mode (AR-C150) Text/Printed photo mode (AR-C250/C160/C270). (Refer to the section of the copy color balance and the density check.)

If the copy color balance and the density are not in the specified level, repeat procedures 7) through 9) until they are in the specified level.

However, repetition is limited to three times. If repetition of the above procedures does not set the copy color balance and the density to the specified level, there may be some other reason. Investigate the reason and repair or fix the problem, then perform all the procedures of print quality adjustment from the beginning.

10) When the color balance is customized, register the color balance as the service target by SIM 63-7. (AR-C150/C250/C160/C270)
    When the color balance is not customized, there is no need to perform this work.
    If the customized color balance is registered as the service target, when the color balance is adjusted in the next time, the automatic color balance adjustment mode can be used. In the next color balance adjustment, select the service target color balance in the automatic color balance adjustment mode, and the color balance will be adjusted to the same color balance as registered this time.

Troubleshooting on copy color balance and density

If the copy quality adjustment cannot provide a normal copy quality, check the following items.

Check that the following simulation values are in the specified range. If any value is improper, check the machine conditions and replace consumable parts or take necessary measures.

(AR-C150)

SIM No	ITEM	SPEC				NOTE
		GR	BS	DV	BS	
		Standard value	Fixed	Standard value	Fixed	
44-9 (NORMAL MODE) (2/6)	BLACK	333 to 875 (PCU Ver6.01 Sub PCU Ver5.04 or before) / 333 to 900 (PCU Ver6.02a Sub PCU Ver5.05 or later)	525 (AR-C100/C150) 545 (AR-C250/C160/C270)	150 – 700	325	A greater difference between GR-BS(XXX) and DV-BS(XXX) means a greater correction quantity of the DV bias voltage and of the main charger grid voltage. It may be judged that the image process section conditions are degraded. (The deterioration degree of developer, the OPC drum, the transfer belt, the transfer roller, and the main charger, etc. may be presumed.)
	CYAN	305 to 850 (PCU Ver6.01 Sub PCU Ver5.04 or before) / 305 to 900 (PCU Ver6.02a Sub PCU Ver5.05 or later)	525 (AR-C100/C150) 545 (AR-C250) 555 (AR-C160/C270)	125 to 700		
	MAGENTA					
	YELLOW					

(AR-C250)

SIM No	ITEM	SPEC				NOTE
		GR	BS	DV	BS	
		Standard value	Fixed	Standard value	Fixed	
44-9 (NORMAL MODE) (2/6)	BLACK	333 to 875 (PCU Ver4.0D Sub PCU Ver3.0D or before) / 333 to 900 (PCU Ver4.01 Sub PCU Ver3.01 or later)	525 (AR-C100/C150) 545 (AR-C250/C160/C270)	150 – 700	325	A greater difference between GR-BS(XXX) and DV-BS(XXX) means a greater correction quantity of the DV bias voltage and of the main charger grid voltage. It may be judged that the image process section conditions are degraded. (The deterioration degree of developer, the OPC drum, the transfer belt, the transfer roller, and the main charger, etc. may be presumed.)
	CYAN	305 to 850 (PCU Ver4.0D Sub PCU Ver3.0D or before) / 305 to 900 (PCU Ver4.01 Sub PCU Ver3.01 or later)	525 (AR-C100/C150) 545 (AR-C250) 555 (AR-C160/C270)	125 to 700		
	MAGENTA					
	YELLOW					

(AR-C160/C270)

SIM No	ITEM	SPEC				NOTE
		GR	BS	DV	BS	
		Standard value	Fixed	Standard value	Fixed	
44-9 (NORMAL MODE) (2/6)	BLACK	333 to 900	525 (AR-C100/C150) 545 (AR-C250/C160/C270)	150 – 700	325	A greater difference between GR-BS(XXX) and DV-BS(XXX) means a greater correction quantity of the DV bias voltage and of the main charger grid voltage. It may be judged that the image process section conditions are degraded. (The deterioration degree of developer, the OPC drum, the transfer belt, the transfer roller, and the main charger, etc. may be presumed.)
	CYAN	305 to 900	525 (AR-C100/C150) 545 (AR-C250) 555 (AR-C160/C270)	125 to 700		
	MAGENTA					
	YELLOW					

Perform the following procedures.

JOB No	WORK ITEM			SIM No	Trouble caused by improper adjustment	NOTE	
ADJ M4	High voltage adjustment	ADJ 1	Main charger grid voltage adjustment	8-2	Improper image density (especially in the high density section), improper copy, image density section copy abnormality, chip on the edge of half-tone images	If the digital multi-meter and the high voltage probe specified on the Service Manual are not available, set the adjustment value to the default.	Check and adjust when the high voltage PWB (Main charger / DV bias) is replaced. / Adjust when the output is not in the specified level. / Check and adjust when the copy/print quality (density, color balance) adjustment does not provide a satisfactory result.
		ADJ 2	DV bias voltage adjustment	8-1	Improper image density, improper copy, image density section copy abnormality, chip on the edge of half-tone images		Check and adjust when the high voltage PWB (Main charger / DV bias) is replaced. / Adjust when the output is not in the specified level. / Check and adjust when the copy/print quality (density, color balance) adjustment does not provide a satisfactory result.
		ADJ 3	Transfer voltage adjustment	44-30	Improper image density, half-tone image section improper copy, high density image section density unevenness and improper copy, low density inside image outline		Check and adjust when the high voltage PWB (Transfer) is replaced. / Adjust when the output is not in the specified level. / Check and adjust when the copy/print quality (density, color balance) adjustment does not provide a satisfactory result.
ADJ M6	Image density sensor adjustment	ADJ 1	Image density sensor calibration	44-13	Because of improper operation of the process correction (high density section image density correction), parameters of the voltage, the current, and the laser power of the process section become improper to cause improper image density, improper copy, abnormal copy, chip on the edge of half-tone image, tone gap, improper color balance, etc. / Error F2-44 – 45, 80 – 90		Adjust when the copy/print quality (density, color balance) adjustment does not provide a satisfactory result or when an error F2-44 – 45, 80 – 90 occurs.
		ADJ 2	Image density sensor position adjustment	44-23			

Check that the following simulation values are in the specified range. If not, troubleshoot the cause and repair.

SIM No	ITEM	Display value at 25°C, 70% (Reference value)	Phenomenon when the sensor operation is abnormal		NOTE
44-14	TEMPERATURE	100 to 120	The process section correction for change in temperature/humidity is not performed. (Toner density, transfer voltage, resist roller RPM corrections)	(Improper color balance, abnormal copy, improper copy, toner dispersion, improper image density, image deflection, image dirt, decreased density inside image outline)	Check the relationship between the actual environment and the sensor output level, and check that the sensor is operating properly.
	HUMIDITY	35 to 45			

Check that the following simulation values are normal. If not, troubleshoot the cause and repair.

SIM No	ITEM	LAST(BUP)	LEVEL	Phenomenon caused by improper set value	NOTE
44-16 (TONER DENSITY) (1/3)	BLACK			Improper image density, improper copy, improper color balance, toner dispersion, developer dispersion	If the difference between LAST (BUP) and LEVEL is extremely great, the toner density control may not function properly.
	CYAN				
	MAGENTA				
	YELLOW				

SIM No	ITEM	LV-ORG	DV	HUD	LV	Phenomenon caused by improper set value		NOTE
44-16 (ATC SENSITIVITY REVISE) (3/3)	BLACK					Toner density correction is nor performed properly.	Improper image density, improper copy, improper color balance, toner dispersion, developer dispersion	The toner density correction levels for the use frequency of developer and the humidity are displayed. Check that those levels are proper.
	CYAN							
	MAGENTA							
	YELLOW							

Check that the following simulation values are in the specified range. If not, troubleshoot the cause and readjust.

SIM No	ITEM	SPEC		Phenomenon caused when the adjustment value is not in the normal value range.		NOTE
		Default	Standard value			
44-2	DMGNDY	—	185 ± 10 / 0 to 255	Improper adjustment of OPC drum phase	Image color shift, banding, F2-50 – 57	Check the sections related to the OPC drum and the OPC drum mark sensor.
	DMGNDM	—				
	DMGNDC	—				
	DMGNDK	—				
	MKY/GND	—	30 to 70			
	MKM/GND	—				
	MKC/GND	—				
	MKK/GND	—				
	PCLEDC	—	0 to 255	Because of improper image sensor sensitivity adjustment, the process correction (high density section image density correction) is not performed properly, resulting in improper parameters of the voltage, the current, and the laser power of the process section. / Because of improper half-tone process correction, the laser ON duty becomes improper.	Improper image density, improper copy, abnormal copy, chip on the edge of half-tone image, tone gap, improper color balance / Errors F2-44 – 45, 80 – 90	Check the sections related to the transfer belt and the image density sensor.
	PCLEDK	—				
	P_BK_B	—	SIM44-4 (PCS_B_TARGET_ID) ± 2 / 0 to 255			
	P_CY	—	SIM44-13 (P_CYI) ± 2 / 0 to 255			

Check the following simulation values are in the specified range. If not, set the values to the specified range.

SIM No	ITEM	SPEC		Phenomenon cause when the set value is changed	Phenomenon caused when the set value is not in the normal value range	NOTE
		Default	Standard value			
44-4	PCS_C_TARGET_ID	102	—	Change in the color image sensor sensitivity (When the set value is increased, the image density is decreased. When the set value is decreased, the image density is increased.)	Because of improper image sensor sensitivity adjustment, the process correction (high density section image density correction) is not performed properly, resulting in improper parameters of the voltage, the current, and the laser power of the process section. / Because of improper half-tone process correction, the laser ON duty becomes improper. Improper image density, improper copy, abnormal copy, chip on the edge of half-tone image, tone gap, improper color balance / Errors F2-44 – 45, 80 – 90	
	PCS_B_TARGET_ID	133	—	Change in the black image sensor sensitivity (When the set value is increased, the image density is increased. When the set value is decreased, the image density is decreased.)		
	Y_PAT_TARGET_ID	90	—	Change in the process correction (Yellow image high density section image density correction) level (When the set value is increased, the image density in the high density section is increased and abnormal copy is decreased. When the set value is decreased, the image density in the high density section is decreased and abnormal copy is increased.)	Color image high density section abnormal copy, improper image density, improper copy, improper color balance, toner dispersion, developer dispersion	
	M_PAT_TARGET_ID	100	—	Change in the process correction (Magenta image high density section image density correction) level (When the set value is increased, the image density in the high density section is increased and abnormal copy is decreased. When the set value is decreased, the image density in the high density section is decreased and abnormal copy is increased.)		
	C_PAT_TARGET_ID	83	—	Change in the process correction (Cyan image high density section image density correction) level (When the set value is increased, the image density in the high density section is increased and abnormal copy is decreased. When the set value is decreased, the image density in the high density section is decreased and abnormal copy is increased.)		
	K_PAT_TARGET_ID	15 (AR-C100/ C150) 22 (AR-C160/ C250/ C270)	—	Change in the process correction (Black image high density section image density correction) level (When the set value is increased, the image density in the high density section is decreased and abnormal copy is increased. When the set value is decreased, the image density in the high density section is increased and abnormal copy is decreased.)	Black image high density section abnormal copy, improper image density, improper copy, improper color balance, toner dispersion, developer dispersion	

Check that the following simulation values are in the specified range. If not, set it to the proper value.

SIM No	ITEM	SPEC		Change in copy quality due to change in setting	Phenomenon caused by improper setting	NOTE
		Standard value				
43-1	HL1 PLAIN PAPER	Default value (Depending on the destination. Refer to Service Manual.)	–5 / +10	Fusing capability and image gloss are changed.	Improper fusing, image deflection, image flow, image dirt	Check that the setting is made according to the destination. (Refer to Service Manual.) Check that the set values are in the specified range.
	HL2 PLAIN PAPER		–5 / +10			
	HL1 READY		–0 / +0			
	HL2 READY		–0 / +0			
	HL1 E_STAR		–0 / +0			
	HL1 PRE-BK		–0 / +0			
	HL1 HEAVYPAPER1		–5 / +10			
	HL2 HEAVYPAPER1		–5 / +10			
	HL1 HEAVYPAPER2		–5 / +0			
	HL2 HEAVYPAPER2		–5 / +0			
	HL1 TRANSPARENCY		–5 / +10			
	HL2 TRANSPARENCY		–5 / +10			

If the copy quality adjustment cannot provide a normal copy quality, check that the following simulation values are in the specified range. If not, set the values as specified.

SIM No	ITEM	SPEC			Phenomenon caused when the set value is changed	Phenomenon caused when the set value is outside the specified range	NOTE
		BLUE RANK	RED RANK	NO-DISPLAY RANK			
43-7	A	12	12	12	When the set value is decreased, the oil supply is decreased. When the set value is increased, the oil supply is increased.	Shortened life due to damage on the heat roller surface, degraded image gloss, abnormal image, image dirt, improper fusing, paper jam, oil leakage, oil dirt	
	B	80	180	130	When the set value is increased, the oil supply is decreased. When the set value is decreased, the oil supply is increased.		

If the copy quality adjustment cannot provide a normal copy quality, check the following parts for any abnormality.

PART NAME	Phenomenon caused by abnormal parts	NOTE
Fusing oil application roller	Shortened life due to damage on the heat roller surface, degraded image gloss, abnormal image, image dirt, improper fusing, paper jam, oil leakage, oil dirt	In case of an abnormality, replace the part.
Fusing roller cleaning roller		
Fusing application felt		
Fusing application blade		
Fusing roller		
Fusing gear	Greater banding, improper image (color shift, flow, deflection), toner dispersion	

Check the following items are properly adjusted. If any adjustment is improper, adjust it properly.

JOB No	WORK ITEM	Trouble caused by improper adjustment	NOTE
ADJ M22	Fusing pressure adjustment	Improper fusing, improper image gloss, paper jam, paper wrinkles	Perform the adjustment in case of improper fusing, improper image gloss, paper jam, or paper wrinkles.

Check the following items.

WORK ITEM	SPEC	Phenomenon caused by oil filter problem	NOTE
Check the oil pump filter condition.	Check that the oil pump filter is not clogged.	Shortened life due to damage on the heat roller surface, lower image gloss, image abnormality, image dirt, improper fusing, paper jam, oil leakage, oil dirt	Check and clean the oil filer at every servicing.

Check that the following simulation values are properly set. If not, set it to the proper value.

SIM No	ITEM	SPEC/Default value	Phenomenon caused when the value is outside the specified range		NOTE
48-1	B	50	Degraded accuracy of area separation (degraded accuracy of filter process, black character and black-line edge process)	Degraded sharpness of black characters and black lines, increased moire	Check that the set item B is set to 50. If it is not set to 50, the best quality cannot obtained.

Check that the following simulation values are in the specified range. If not, set the values as specified.

SIM No	ITEM	SPEC						Phenomenon caused when the set value is changed	Phenomenon caused when the set value is outside the specified range	NOTE
		AR-C100/C150		AR-C250		AR-C160/C270				
		Default	Standard value	Default	Standard value	Default	Standard value			
48-6	RRM	55	± 0	55	± 0	55	± 0	Change in the resist motor RPM	Improper image at the rear end in the paper transport direction (color shift, flow, dirt, deflection)	
	BELTM	51	± 0	51	± 0	51	± 0	Change in the transfer belt rotation speed	Greater banding, improper image (color shift, flow, deflection, flow), toner dispersion	
	FSM(L)	45	Default + 20	50 (Japan) 40 (Except Japan)	Default + 20	55 (Japan) 50 (Except Japan)	Default + 20	Change in the fusing roller rotation speed	Improper image at the rear end in the paper transport direction (color shift, flow, dirt, deflection)	
	FSM(S)	40	Default + 20	45 (Japan) 40 (Except Japan)	Default + 20	60 (Japan) 55 (Except Japan)	Default + 20			
	DM(BK)	42	± 0	42	± 0	42	± 0	Change in the black OPC drum rotation speed	Greater banding, improper image (color shift, flow, deflection, flow), toner dispersion	
	DM(CL)	37	± 0	37	± 0	37	± 0	Change in the color OPC drum rotation speed	Greater banding, improper image (color shift, flow, deflection, flow), toner dispersion	

Check that the following simulation values are in the specified range. If not, set the values as specified.

SIM No	ITEM		SPEC		Phenomenon caused when the value is not as specified		NOTE
			AR-C150	AR-C250/C160/C270			
46-6	B	A(OFFSET ODD)	150	150	Improper image scan level (density, color balance)	Improper image density, improper color balance	Be sure to set as specified.
		B(OFFSET EVEN)	150	150			
		C(GAIN ODD)	120	150			
		D(GAIN EVEN)	120	150			
	G	A(OFFSET ODD)	150	150			
		B(OFFSET EVEN)	150	150			
		C(GAIN ODD)	140	130			
		D(GAIN EVEN)	140	130			
	R	A(OFFSET ODD)	150	150			
		B(OFFSET EVEN)	150	150			
		C(GAIN ODD)	180	160			
		D(GAIN EVEN)	180	160			

Check that the following items are properly set. If any adjustment is improper, adjust it properly.

JOB No	WORK ITEM	NOTE
ADJ M1	DV Doctor gap adjustment	Improper image density, improper copy, improper color balance, toner dispersion, developer dispersion
ADJ M2	DV roller main pole position adjustment	

(Auto color balance adjustment service target gamma setup)

a. Outline

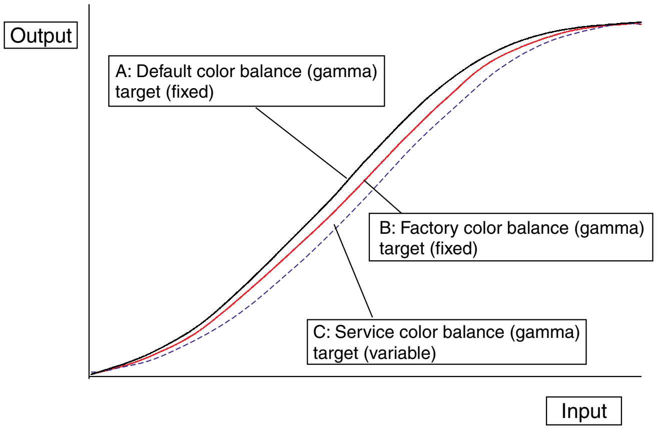
Auto color balance adjustment is performed with a certain color balance (gamma) as a target. There are following two kinds of targets:

Only the service target among them allows optional setup of a color balance (gamma) target.

This setup must be performed in the following cases.

- When the user requests to customize the color balance.
- When the service target gamma is found to be incorrect.
- When the copy color balance and the density adjustment is manually performed. (SIM 46-21)
- When a U2 trouble occurs.
- When the ICU main PWB is replaced.
- When the EEPROM on the ICU main PWB is replaced.

Kinds of color balance (gamma) target



NOTE: The above figure is for a brief description, and does not show the actual state.

Kinds		Descriptions
A	Default color balance (gamma) target (fixed)	This is the average, standard color balance (gamma) target determined by the machine design. This color balance (gamma) target is identical in all the machines, without consideration for individuality of machines. When SIM 63-8 is executed, the service color balance (gamma) target becomes the same as this target. In SIM 46-24 (46-22) menu, this target is not displayed.
B	factory color balance (gamma) target (fixed)	This is the standard color balance (gamma) target which was registered (set) in the factory, and cannot be changed in the market. This color balance (gamma) target is set depending on individuality of each machine to obtain the standard color balance. It, therefore, differs slightly in different machines. When the service target falls into an abnormal state by some reasons, this target can be used instead of it. When shipping, this target is the same as the service color balance (gamma) target.
C	Service color balance (gamma) target (variable)	This is obtained by registering (setting) with SIM 63-7 the adjustment pattern of the color balance (gamma) which was adjusted with SIM 46-21. This color balance (gamma) target is set depending on individuality of each machine to obtain the standard color balance. It, therefore, differs slightly in different machines. However, an optional color balance (gamma) target can be set according to a user's request. When shipping, this target is the same as the factory color balance (gamma) target. When SIM 63-8 is executed, the service color balance (gamma) target becomes the same as the default color balance (gamma) target.

NOTE: Do not execute SIM 63-8 unless there is any special reason.

(Meaning of the service target gamma data and purpose of registration)

This work must be executed only when the color balance is customized by SIM 46-21.

If the color balance is not customized, there is no need to perform this work.

Execute SIM 46-21 to adjust the color balance (Manual) according to the user request (customized color balance). Then use the adjustment pattern printed in this mode to register the service target gamma data with SIM 63-7.

This will revise the service target gamma data.

It is recommendable to record the adjustment pattern printed in the above procedure. By using the adjustment pattern, the same color balance target can be registered in another machine. It is also useful to register the service target gamma data again.

Be careful, however, not to fold the pattern or avoid discoloration and dirt.

Basically the service target gamma data must be registered immediately after completion of the color balance adjustment (Manual) with SIM 46-21.

If a considerable time has passed after completion of the color balance adjustment (Manual) with SIM 46-21, the color balance of the adjustment pattern after a considerable time differs from that before a considerable time. Do not use such an adjustment pattern.

Whether the service target gamma data are correct or not can be determined by the following.

When the adjustment result of SIM 46-24 color balance adjustment (Auto) by selecting the service target is abnormal or unsatisfactory:

In this case, the service target gamma data may be incorrect.

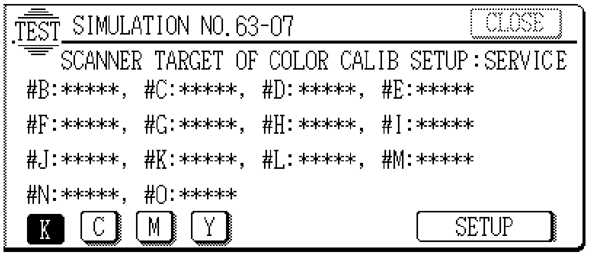
The possible cause is incorrectness or abnormality of the color balance adjustment pattern used when registering the service target gamma data of the color balance adjustment (Auto) with SIM 63-7.

The color balance adjustment pattern is printed after the color balance adjustment (Manual) with SIM 46-21. The possible cause lies in this procedure.

b. Setup procedure

(Procedure to set the an optional color balance (gamma) as the service target)

1) Two sheets of color patch image (adjustment pattern) are outputted in the copy color balance adjustment (manual adjustment) (SIM 46-21). (ADJ M17/ADJ 3)
At that time, when the color balance is shifted from the standard, an adjustment is required. If not, there is no need to adjust.
If an optional color balance is required according to the user's request, an adjustment is required.
2) Enter the SIM 63-7 mode.



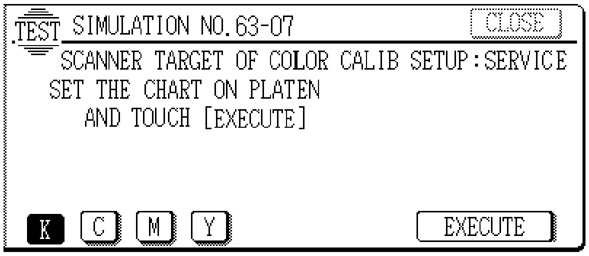
SIMULATION NO.63-07
SCANNER TARGET OF COLOR CALIB SETUP:SERVICE
#B:*****, #C:*****, #D:*****, #E:*****
#F:*****, #G:*****, #H:*****, #I:*****
#J:*****, #K:*****, #L:*****, #M:*****
#N:*****, #O:*****

3) Press the SETUP key.
4) Set the color patch image (adjustment pattern) paper properly adjusted and printed in the copy color balance adjustment (manual adjustment) (SIM 46-21) (ADJ M17/ADJ 3) on the original table.
The color patch image (adjustment pattern) printed by SIM 64-2 may be used. In this case, check that the printed image is proper. (The other color patch images (adjustment patterns) printed by another machine may be used.)
Set the paper on the original table so that the darker density side comes on the left side. Then place 5 sheets of white paper on the color patch image (adjustment pattern).

If it is difficult to adjust the color balance adjustment (Manual) with SIM 46-21 satisfactorily, do not register the service target gamma data with SIM 63-7.

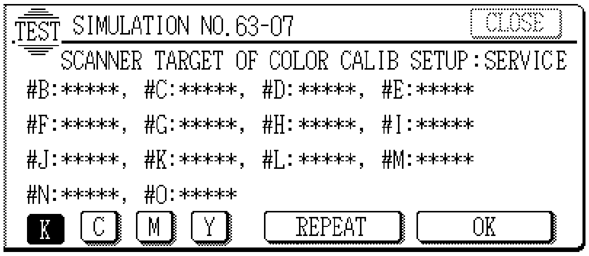
5) Press the EXECUTE key.

The color patch image (adjustment pattern) is read.



SIMULATION NO.63-07
SCANNER TARGET OF COLOR CALIB SETUP:SERVICE
SET THE CHART ON PLATEN
AND TOUCH [EXECUTE]

6) Press the REPEAT key and set the second color patch image (adjustment pattern) on the original table.



SIMULATION NO.63-07
SCANNER TARGET OF COLOR CALIB SETUP:SERVICE
#B:*****, #C:*****, #D:*****, #E:*****
#F:*****, #G:*****, #H:*****, #I:*****
#J:*****, #K:*****, #L:*****, #M:*****
#N:*****, #0:*****

The color balance (gamma) target setup level of each color can be checked with K/C/M/Y keys.

The setup level values must be in the ascending sequence of B - 0. If there is no change or the sequence is reversed, it is judged as an abnormality.

In case of an abnormality, resolve the problem and check again.

7) Press the OK key.

The color balance (gamma) corresponding to the color patch image (adjustment pattern) printed in the copy color balance adjustment (manual adjustment) (ADJ M17/ADJ 3) is set as the service target.

(Procedure to set the default (standard) color balance (gamma) as the service target)

Do not execute this procedure unless there is any special reason.

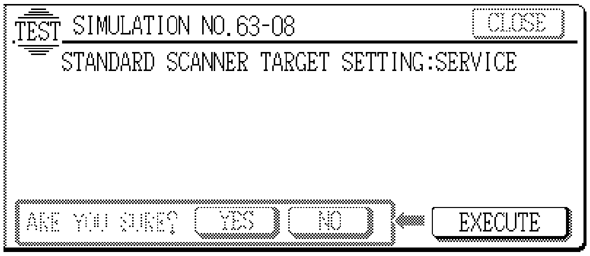
* Only when the factory target is judged as abnormal in the automatic color balance adjustment by SIM 46-24, this procedure is required in the following case:

* When the ICU EEPROM data are destroyed by U2 trouble.

When SIM 63-8 is executed, the service target gamma data are changed to the default target gamma data determined by the machine design.

When the color balance adjustment (Auto) is executed with the service target gamma data set to the default target gamma, a virtually satisfactory result will be obtained.

1) Enter the SIM 63-8 mode.



SIMULATION NO.63-08
STANDARD SCANNER TARGET SETTING:SERVICE
ARE YOU SURE?

2) Press the EXECUTE key.

3) Press the YES key.

The service target becomes the same as the default (standard) target.

ADJ 4 Low-density area density adjustment (Normall unnecessary to adjust)

NOTE for SIM 46-1 and 46-2:

The major purpose of these simulations is to delete background copy simply.

SIM 46-1 and 46-2 are used to adjust the copy density in the low-density area, and they do not affect the density in the high-density area.

Note that the tone and the color phase may be changed greatly if the set value is changed greatly.

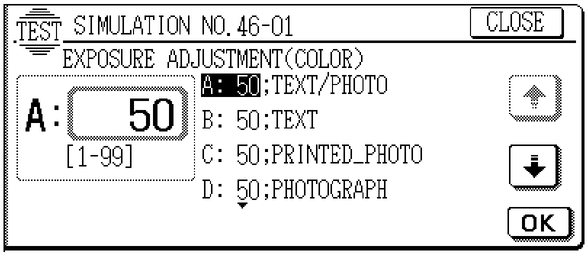
When an extreme background copy is produced, use ADJ M17/ADJ 3 Color balance adjustment (Manual) (SIM 46-21) instead of this procedure.

The adjustment result of SIM 46-1 is reflected evenly to all the color copy modes.

The adjustment result of SIM 46-2 is reflected evenly to all the monochrome copy modes.

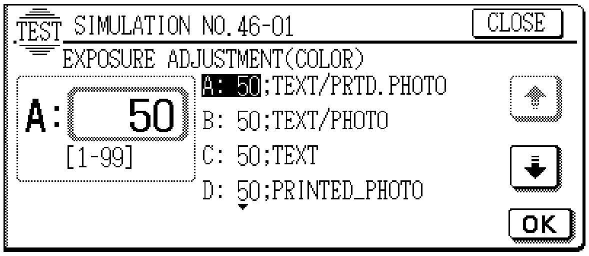
1) Enter the SIM 46-1 or 46-2 mode.

(AR-C150)



SIMULATION NO.46-01
EXPOSURE ADJUSTMENT(COLOR)
A: 50
[1-99]
A: 50;TEXT/PHOTO
B: 50;TEXT
C: 50;PRINTED_PHOTO
D: 50;PHOTOGRAPH

(AR-C250/C160/C270)



SIMULATION NO.46-01
EXPOSURE ADJUSTMENT(COLOR)
A: 50
[1-99]
A: 50;TEXT/PRTD.PHOTO
B: 50;TEXT/PHOTO
C: 50;TEXT
D: 50;PRINTED_PHOTO

2) Select the copy mode to be adjusted with the scroll key.

3) Enter the adjustment value with the 10-key, and press the [OK] key.

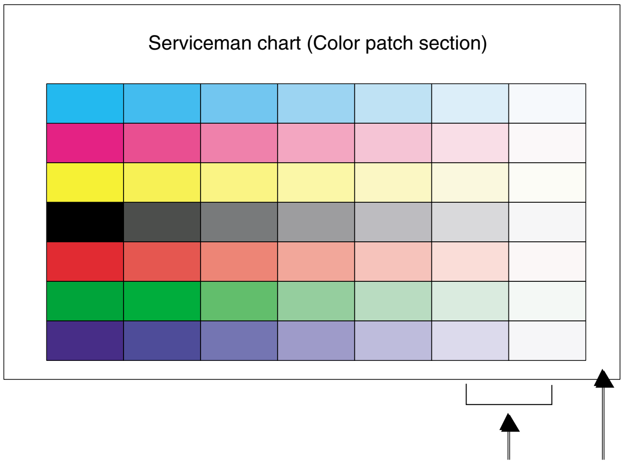
To increase the density in the low-density area, set a greater adjustment value. To reduce the density, set a lower adjustment value. The adjustment in the low-density area can be adjusted individually for each copy mode.

The greater the set value is, the greater the density in the low-density area is, and vice versa. (The density in the high-density area is not changed.)

4) Cancel the simulation mode, and make a copy in the normal mode to check the copy density in the white area and the low-density area by using the test chart (UKOG-0283FCZZ).

In this simulation mode, press CLOSE key to jump to the normal copy mode and make actual copies of the service chart and user documents. In this manner, the adjustment result can be checked.

The adjustment can be performed also by switching between the simulation mode and the normal copy mode alternately and checking the adjustment result with actual copies.



Check the copy density in the low-density area and the white area of the color patch section.

ADJ 5 Copy color balance adjustment (Copy mode) (Normall unnecessary to adjust)

This adjustment must be performed in the following cases:

- When a U2 trouble occurs.
- When the ICU main PWB is replaced.
- When the EEPROM of the ICU main PWB is replaced.

Used to adjust the gamma and the density in each copy mode individually. The adjustment in each copy mode is not required normally, but is performed when the user requests it.

1) Enter either of SIM 46-10, 46-19 modes. (Select the simulation according to the copy mode to be adjusted.)

AR-C250

Copy mode				Model	Adjustment (Simulation)					
					Color balance adjustment in each copy mode		Overall color balance adjustment of all copy modes		Low density level	
					Main	Sub	Main	Sub	Main	Sub
Color	Copy document mode	Text Printed Photo mode	Manual	AR-C250	46	10	46	21/20	46	1
		Printed Photo mode	Manual	AR-C250						
		Text mode	Manual	AR-C250						
	Normal mode	Text mode	Manual	AR-C250		11				
			Auto							
		Text Printed Photo mode	Manual	AR-C250		12				
			Auto							
		Printed Photo mode	Manual	AR-C250						
		Photo mode	Manual	AR-C250		13				
		Text Photo mode	Manual	AR-C250						
			Auto							
		Map mode	Manual	AR-C250		14				
Monochrome	Copy document mode	Text Printed Photo mode	Manual	AR-C250		15				2
		Printed Photo mode	Manual	AR-C250						
		Text mode	Manual	AR-C250						
	Normal mode	Text mode	Manual	AR-C250		16				
			Auto							
		Text Printed Photo mode	Manual	AR-C250		17				
			Auto							
		Printed Photo mode	Manual	AR-C250						
		Photo mode	Manual	AR-C250		18				
		Text Photo mode	Manual	AR-C250						
			Auto							
		Map mode	Manual	AR-C250		19				

AR-C160/C270

Copy mode				Model	Adjustment (Simulation)					
					Color balance adjustment in each copy mode		Overall color balance adjustment of all copy modes		Low density level	
					Main	Sub	Main	Sub	Main	Sub
Color	Copy document mode	Text Printed Photo mode	Manual	AR-C160/C270	46	10	46	21/20	46	1
		Printed Photo mode	Manual	AR-C160/C270						
		Text mode	Manual	AR-C160/C270						
	Normal mode	Text mode	Manual	AR-C160/C270		11				
			Auto							
		Text Printed Photo mode	Manual	AR-C160/C270		12				
			Auto							
		Printed Photo mode	Manual	AR-C160/C270						
		Photo mode	Manual	AR-C160/C270		13				
		Text Photo mode	Manual	AR-C160/C270						
			Auto							
		Map mode	Manual	AR-C160/C270		14				
	color enhancement mode	Text mode	Manual	AR-C160/C270		11				
			Auto							
		Text Printed Photo mode	Manual	AR-C160/C270		12				
			Auto							
		Printed Photo mode	Manual	AR-C160/C270						
		Photo mode	Manual	AR-C160/C270		13				
		Text Photo mode	Manual	AR-C160/C270						
			Auto							
		Map mode	Manual	AR-C160/C270		14				
Monochrome	Copy document mode	Text Printed Photo mode	Manual	AR-C160/C270		15				2
		Printed Photo mode	Manual	AR-C160/C270						
		Text mode	Manual	AR-C160/C270						
	Normal mode	Text mode	Manual	AR-C160/C270		16				
			Auto							
		Text Printed Photo mode	Manual	AR-C160/C270		17				
			Auto							
		Printed Photo mode	Manual	AR-C160/C270						
		Photo mode	Manual	AR-C160/C270		18				
		Text Photo mode	Manual	AR-C160/C270						
			Auto							
		Map mode	Manual	AR-C160/C270		19				

＊ The copy color balance and the density in the color enhancement mode are automatically determined by the adjustment result of the color normal mode. The adjustment unique to this mode cannot be made.

AR-C100/C150

Copy mode			Model	Adjustment (Simulation)					
				Color balance adjustment in each copy mode		Overall color balance adjustment of all copy modes		Low density level	
				Main	Sub	Main	Sub	Main	Sub
Color	Text Photo mode	Manual	AR-C100/C150	46	10	46	21/20	46	1
		Auto							
	Text mode	Manual	AR-C150		11				
		Auto							
	Printed Photo mode	Manual	AR-C150		12				
	Photo mode	Manual	AR-C100/C150		13				
	Map mode	Manual	AR-C150		14				
Monochrome	Text Photo mode	Manual	AR-C150		15				2
		Auto							
	Text mode	Manual	AR-C150		16				
		Auto							
	Printed Photo mode	Manual	AR-C150		17				
	Photo mode	Manual	AR-C100/C150		18				
	Map mode	Manual	AR-C100/C150		19				

2) Select the color to be adjusted with the color select key, and select the adjustment point with the scroll key.

3) Enter the adjustment value with the 10-key, and press the OK key. The adjustment value can be selected in the range of 245 –755 (AR-C160/C270: 1 –999). When the automatic color balance and the density are adjusted with SIM 46-24, all the set values of this simulation are set to 500.
To increase the density, increase the adjustment value. To decrease the density, decrease the adjustment value.

ADJ 1A CCD gamma adjustment (CCD calibration) (Copy document mode) (AR-C250/C160/C270) (Normall unnecessary to adjust)

This adjustment is the CCD gamma adjustment (CCD calibration) for the copy document copy mode, and is different from the CCD gamma adjustment (CCD calibration) in the normal document copy mode (ADJ M17/ADJ 1). In the AR-C250/C160/C270, there are above two kinds of the CCD gamma adjustment (CCD calibration), and both adjustments are required.

This adjustment is required in the following cases:

- After completion of the CCD gamma adjustment (CCD calibration) (Normal original copy mode) (ADJ M17/ADJ 1)

(1) Note before adjustment

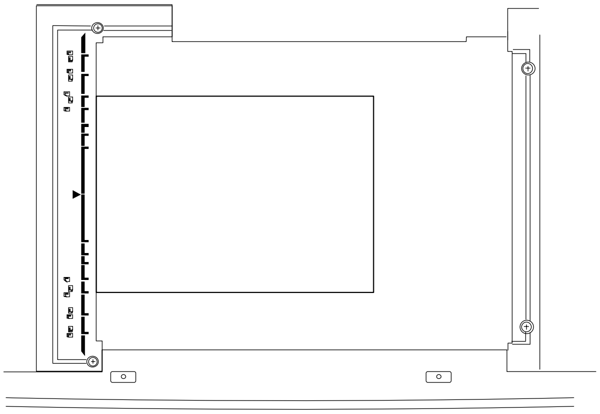
* Check that the table glass, No. 1/2/3 mirrors, and the lens surface are free from dirt and dust.
(If dirt or dust is found, clean with alcohol.)

* Check that the patches of BK1 and BK2 of the SIT chart (UKOG-0280 FCZZ are free from dirt or dust.
If dirt or dust is found, clean with alcohol.
If any damage is found, replace with a new one.

* Since this adjustment is based on the normal document copy mode CCD gamma adjustment (CCD calibration) (ADJ M17/ADJ 1), the said adjustment must have been completed before execution of this adjustment.
The copy color balance must also have been adjusted properly.

(2) Adjustment procedure

1) Place the SIT chart (UKOG-0280FCZZ) on the left edge of the document table, and fit the center of the SIT chart with the center of the glass holder.

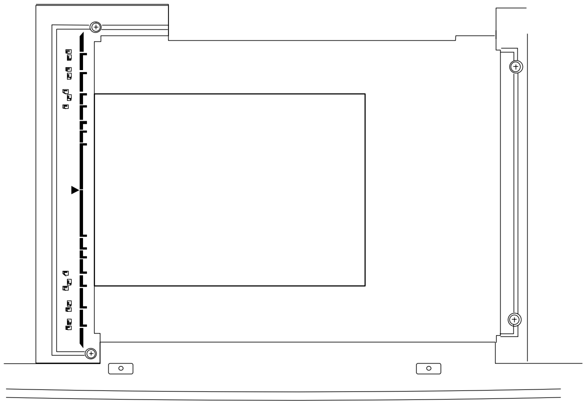


NOTE: Check that the SIT chart (UKOG-0280FCZZ) is in close contact with the document table.

2) Close the document cover without shifting the SIT chart (UKOG-0280FCZZ).

3) Make a copy in the Text/Printed Photo mode. (Be sure to use the specified copy paper.)

4) Set the copy made in procedure 3) on the document table so that the center of the copy paper comes to the center of the left edge of the document table.



5) Enter the SIM 63-09 mode and press the [EXECUTE] key.

The automatic adjustment is performed. During the adjustment, the [EXECUTE] key is highlighted. When the adjustment is completed, the [EXECUTE] key returns to the normal display.

6) Cancel the simulation mode.

NOTE: The SIT chart (UKOG-0280FCZZ) is affected by lights (especially ultra-violet rays) and temperature and humidity. Store it in a clear file (nylon file) in a dark place.

ADJ 6 Black toner component image gamma adjustment (Black character and black line reproduction adjustment) (AR-C250/C160/C270) (Normally unnecessary to adjust.)

The gamma of black toner component images is changed to adjust the reproduction of the profile of the black character and line optionally. Especially the thickness of fine black character and line is changed.

Since the black toner component image quantity differs depending on the copy mode, be careful of the copy mode selection to check the adjustment result. Check in the Text/Printed Photo mode.

This adjustment is valid only in the following copy modes:

- Text copy mode
- Text Printed Photo copy mode
- Text Photo copy mode

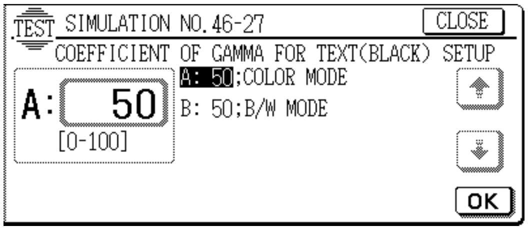
The black toner component ratio is greatest in the Text copy mode, and smallest in the Text Photo copy mode.

This adjustment is required in the following cases when the default was changed:

- When U2 trouble occurs.
- When the ICU MAIN PWB is replaced.
- When the EEPROM of the ICU MAIN PWB is replaced.

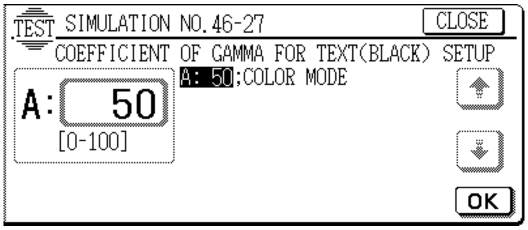
1) Enter the SIM 46-27 mode.

(AR-C160/C270)



SIMULATION NO.46-27
COEFFICIENT OF GAMMA FOR TEXT(BLACK) SETUP
A: 50;COLOR MODE
B: 50;B/W MODE
A: 50
[0-100]

(AR-C250)



SIMULATION NO.46-27
COEFFICIENT OF GAMMA FOR TEXT(BLACK) SETUP
A: 50;COLOR MODE
A: 50
[0-100]

2) Enter the adjustment value with the 10-key.

The greater the adjustment value is, the greater the density is, and vice versa.
Normally set to the default (50).

3) Press the [OK] key.

4) Cancel the simulation, and make a copy in the Text/Printed Photo mode to check the reproduction of fine black character and line.

Use a document with black characters and lines on it for checking.

ADJ 7 Single color copy mode color balance and density adjustment (AR-C250/C160/C270) (Normally unnecessary to adjust.)

This adjustment is used to adjust color balance and the density according to the user's demand.

The adjustment is made by setting the max. density level of Y, M and C in each color.

This adjustment is required in the following cases when the default was changed:

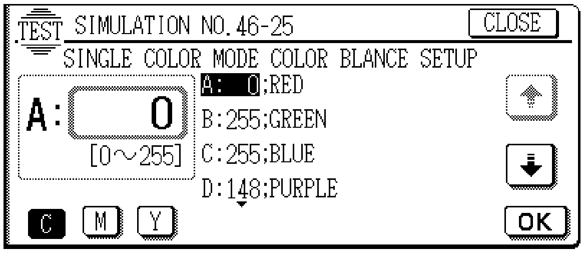
- When a consumable part (developer, photoconductor drum, transfer belt) is replaced.
- When the CCD unit is replaced.
- When the scanner (reading) section is cleaned.
- When U2 trouble occurs.
- When the ICU MAIN PWB is replaced.
- When the EEPROM of the ICU MAIN PWB is replaced.

a. Note for the adjustment

- This adjustment is not required in the normal state, but executed only when the user requests for.

b. Adjustment procedure

1) Enter the SIM 46-25 mode.



TEST SIMULATION NO.46-25
SINGLE COLOR MODE COLOR BLANCE SETUP
A: 0
[0～255]
A: 0;RED
B:255;GREEN
C:255;BLUE
D:148;PURPLE

2) Select the color to be adjusted with the scroll key.

3) Select the color with the color key.

4) Enter the adjustment value of each toner color with the 10-key. (Default)

	Default		
	C	M	Y
RED	0	255	255
GREEN	255	0	255
BLUE	255	255	0
PURPLE	148	238	105
ORANGE	38	140	255
BROWN	131	255	229

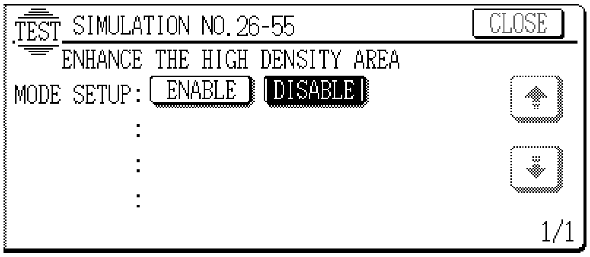
5) Cancel the simulation mode and make a copy in the single color copy mode to check.

ADJ 8 Setup of the gamma characteristic in the color copy mode (AR-C250/C160/C270)

A. Outline

This setup is used to set the priority order between brightness and gradation in the color copy mode. The setup affects the gamma characteristic in the high-density area.

1) Enter the SIM 26-55 mode.



TEST SIMULATION NO.26-55
ENHANCE THE HIGH DENSITY AREA
MODE SETUP: ENABLE DISABLE
:
:
:
1/1

2) Press ENABLE or DISABLE key.

ENABLE: The contrast in the high-density area is increasing, and the gradation is slightly decreased. (Priority is given to brightness.)

DISABLE: Normal picture quality (Priority is given to gradation.)

ADJ 9 Fusing capability setting with heavy paper (in color copy) (AR-C150)

A. Outline

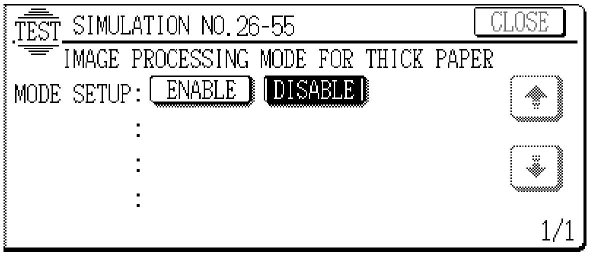
This setting is used to give priority to fusing capability over picture quality in the color copy mode with heavy paper. The quantity of black toner which forms images on the paper is reduced by image process to have better fusing capability.

B. Note

This setting is used only when poor fusing capability is resulted in the color copy mode with heavy paper.

When "ENABLE" (Priority of fusing capability) is selected, the color phase is shifted.

1) Enter the SIM 26-55 mode.



TEST SIMULATION NO.26-55
IMAGE PROCESSING MODE FOR THICK PAPER
MODE SETUP: ENABLE DISABLE
:
:
:
1/1

2) Select between ENABLE and DISABLE.

ENABLE: Priority of fusing capability (The quantity of black toner which forms images on paper is reduced to have better fusing capability, but the black concentration is slightly reduced and the color phase is shifted.) (K toner is reduced and reproduction of black is supplemented by Y/M/C toner.)

DISABLE: Normal mode (Normal image process)

ADJ 10 User auto color calibration (Copy color balance, auto density adjustment) enable setup

A. Outline

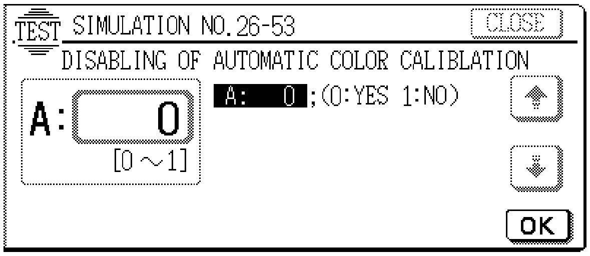
The user can perform the copy color balance and auto density adjustment in the user program mode.
SIIM 26-53 is used to Enable or Disable this operation.

NOTE: This setup is performed only when the user understands the copy color balance and the auto density adjustment and is capable of performing the operation.
Full explanations on the operating procedure, notes, and operations must be given to the user.

- When a U2 trouble occurs.
- When the PCU main PWB is replaced.
- When the EEPROM on the PCU main PWB is replaced.

B. Setup procedure

1) Enter the SIM 26-53 mode.



TEST SIMULATION NO.26-53

DISABLING OF AUTOMATIC COLOR CALIBLATION

A: 0

[0～1]

A: 0;(0:YES 1:NO)

2) Select Enable/Disable with the 10-key.

   Disabling = 0: YES
   Enabling = 1: NO

3) Press the OK key.

When "0: YES" (Disabling) is selected, the user auto color calibration (copy color balance, auto density adjustment) menu is not displayed in the user program mode.

ADJ M18 Document size sensor adjustment

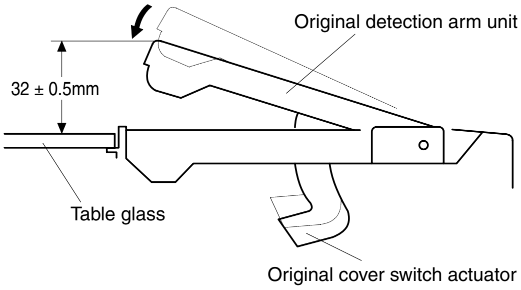
This adjustment must be performed in the following cases:

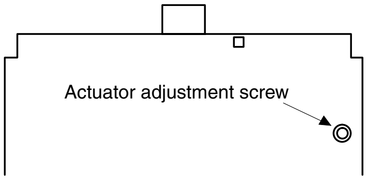
- When the original size sensor section is disassembled.
- When the original size sensor section is replaced.
- When a U2 trouble occurs.
- When the PCU main PWB is replaced.
- When the EEPROM of the PCU main PWB is replaced.

ADJ 1 Original size sensor detection point adjustment

1) Enter the SIM 41-1 mode.

   Gradually tilt the original detection arm unit. Loosen the original cover switch actuator adjustment screw so that the highlight display of OCSW is turned to the normal display when the height of the arm unit top from the table glass is 32 ± 0.5mm.
   Slide the actuator to adjust. (If the ON timing of the original cover switch is shifted, the original detection function may malfunction.)





ADJ 2 Original size sensor sensitivity adjustment

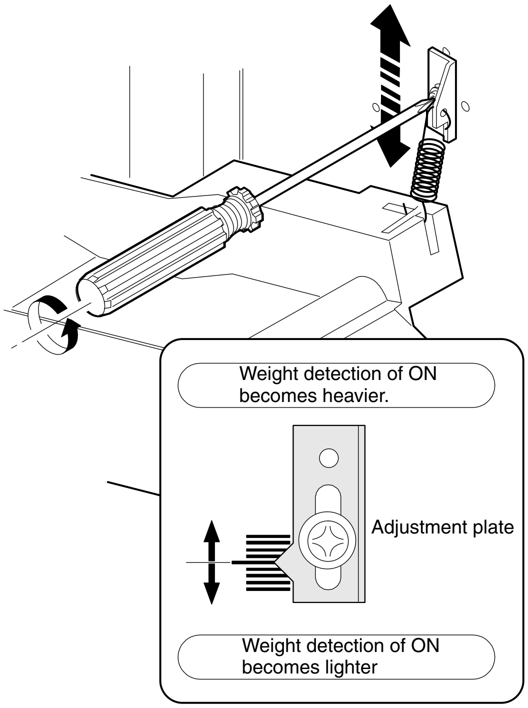
1) Enter the SIM 41-2 mode.
2) Make the sensor adjustment without an original.

   With the original cover open and without an original on the original table, press the [EXECUTE] key.

3) Place A3 (11 × 17) document on the document table and press the [EXECUTE] key.

ADJ M19 Waste toner full detection level adjustment

Install the adjustment plate so that the projection of the plate comes to the center of the scribe line.



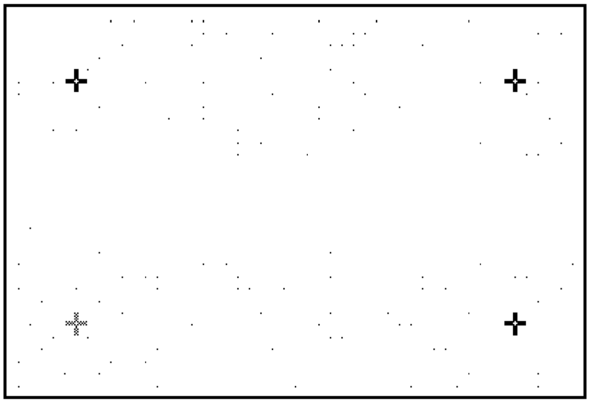
Weight detection of ON becomes heavier.
Adjustment plate
Weight detection of ON becomes lighter

ADJ M20 Touch panel coordinates setting

This adjustment must be performed in the following cases:

- When the operation panel is replaced.
- When a U2 trouble occurs.
- When the PCU main PWB is replaced.
- When the EEPROM of the PCU main PWB is replaced.

1) Enter the SIM 65-1 mode.



2) Touch the four cross marks on the display.

   When the crosses are touched correctly, they turn gray. When all the four crosses are touched, the touch panel adjustment is completed and the display shows the simulation sub code entering screen.

If there is any abnormality, the first display is shown again.

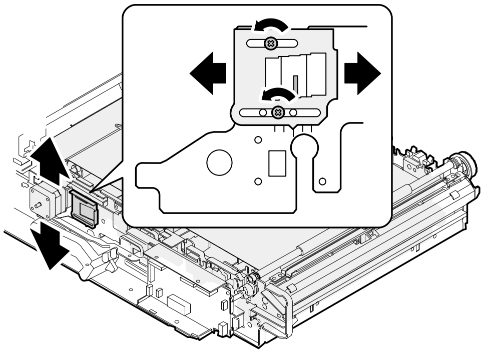
* When touching the crosses, never use a needle or a pin with a sharp point.

ADJ M21 Transfer belt level adjustment (Transfer belt traveling adjustment)

This adjustment must be performed in the following cases:

- When the transfer belt section is disassembled.

1) Make a copy of gray half tone on the whole surface, and check for a color balance difference between the front and the rear sides. Check that there is no difference in the color balance of the front side and the rear side.
2) If there is a color balance difference between the front and the rear sides, change the height of the level adjustment angle to adjust.



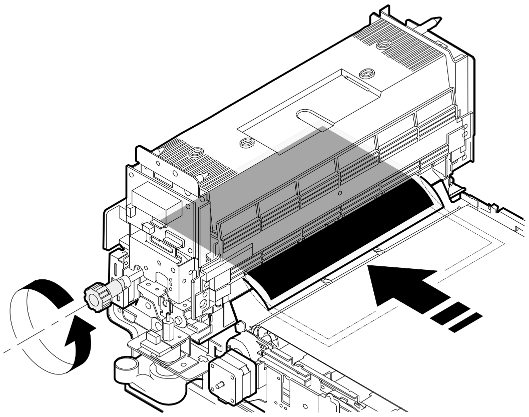
It is fixed at the center normally.

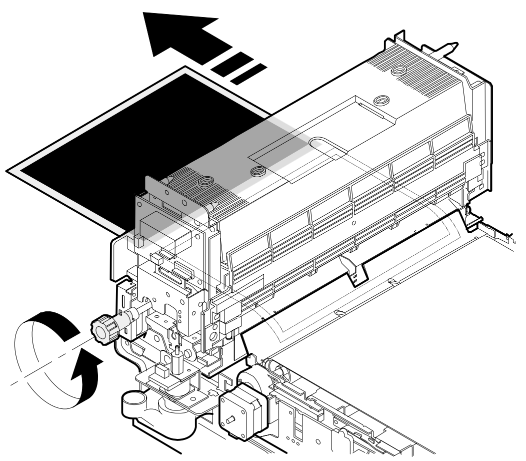
ADJ M22 Fusing pressure adjustment

This adjustment must be performed in the following cases:

- When the fusing section is disassembled.
- When a fusing trouble occurs.
- When wrinkles are generated on paper in the fusing section.

1) Select A4 (8.5 × 11) paper.
2) With the document cover open, press the start key of monochrome copy.
3) A copy of black background is made.
4) Pull out the transfer section.
5) Insert paper into the pre-transfer paper guide, and turn the fusing roller knob.

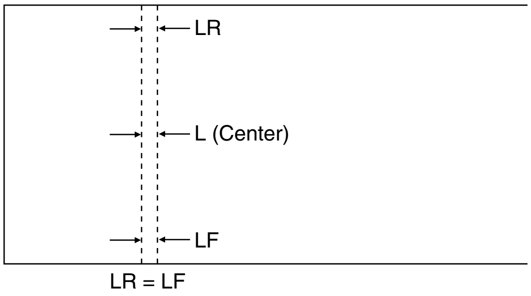




6) With the paper squeezed in the pre-transfer paper guide, wait for about 10sec.
7) Turn the fusing roller knob to remove the paper from the fusing section.
8) Measure the dimension (L) of the center section of the glittering line made by the fusing roller. Check that the dimension is in the specified range.
   Check that the pressure balance between the front and the rear frame sides is proper.

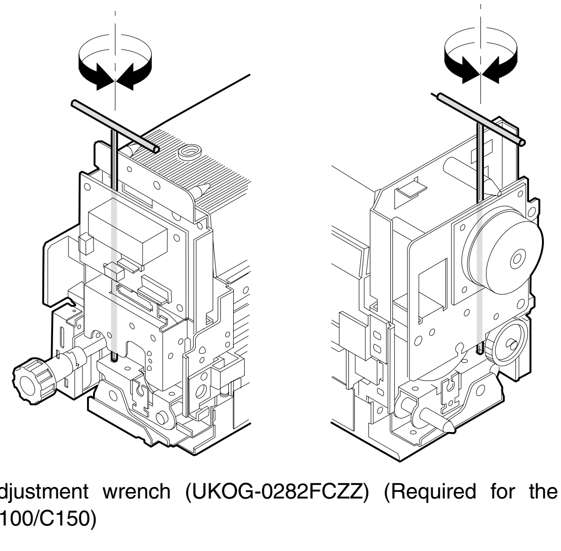
Value L

Model	Japan	Except Japan
AR-C100	5.5 – 6.0 mm	5.5 – 6.0 mm
AR-C150	5.5 – 6.0 mm	5.5 – 6.0 mm
AR-C250	6.0 – 7.0 mm	6.5 – 7.5 mm
AR-C160/C270	6.5 – 7.5 mm	6.5 – 7.5 mm



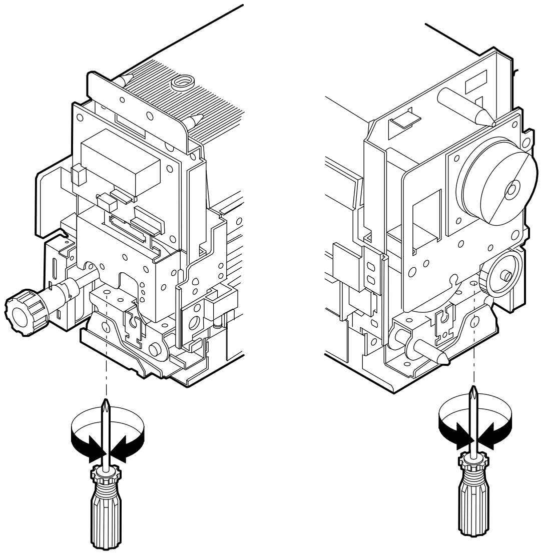
If the above condition is not satisfied, perform the following procedure.

9) Turn the pressure adjustment screw on the front and the rear frame sides of the fusing unit to adjust the fusing pressure.
   (AR-C100/C150)



Adjustment wrench (UKOG-0282FCZZ) (Required for the AR-C100/C150)

(AR-C250/C160/C270)



Repeat procedures 2) – 9) until the condition of procedure 8) is satisfied.

ADJ M23 Power voltage adjustment (AR-C100/C150/C250/C270)

This adjustment must be performed in the following cases:

- When a part in the DC power unit is replaced.

ADJ 1 3.4V power voltage adjustment

1) Put the multi-meter on the 3.4V line of the DC main PWB and GND.
2) Turn VR704 on the DC main PWB to adjust so that the voltage is 3.4V.

ADJ 2 5.0V power voltage adjustment

1) Put the multi-meter on the 5.0V line of the DC main PWB and GND.
2) Turn VR703 on the DC main PWB to adjust so that the voltage is 5.0V.

ADJ 3 24V power voltage adjustment

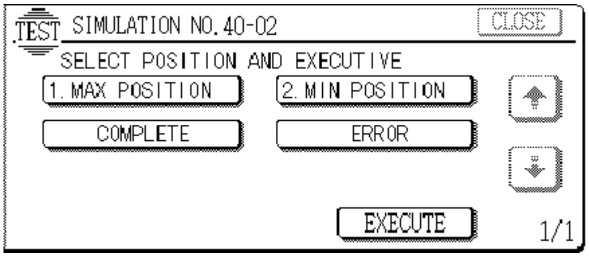
1) Put the multi-meter on the 24V line of the DC main PWB and GND.
2) Turn VR702 on the DC main PWB to adjust so that the voltage is 24.0V.

ADJ M24 Manual paper feed size detection level adjustment

This adjustment must be performed in the following cases:

- When the manual paper feed tray section is disassembled.
- When the manual paper feed tray is replaced.
- When a U2 trouble occurs.
- When the PCU main PWB is replaced.
- When the EEPROM of the PCU main PWB is replaced.

1) Execute SIM 40-2.



TEST SIMULATION NO.40-02

SELECT POSITION AND EXECUTIVE

2) Extend the manual paper feed guide fully.
3) Press [MAX POSITION] on the LCD of the operation panel to highlight it.
4) Press [EXECUTE] on the LCD of the operation panel to highlight it.

   If normal, the highlight is shifted from [MAX POSITION] to [MIN POSITION].
5) Narrow the manual paper feed tray guide fully.
6) Press [EXECUTE] on the LCD of the operation panel to highlight it.

   Check that [COMPLETE] is highlighted.

ADJ M25 OHP sensor adjustment

This adjustment must be performed in the following cases:

- When the OHP sensor is replaced.
- When the OHP sensor is disassembled.
- When a U2 trouble occurs.
- When the PCU main PWB is replaced.
- When the EEPROM of the PCU main PWB is replaced.

1) Enter the SIM 40-5 mode.
2) Set A4 (11 × 8.5) paper to the manual paper feed tray.
3) Press the EXECUTE key.

Paper in the manual paper feed tray is fed and stopped at the OHP sensor section.

The sensor LED current level is automatically adjusted so that the specified (target) output of the OHP sensor is supplied.

After adjustment, paper is discharged and the result data is displayed.

When the adjustment is completed normally, ADJUSTMENT COMPLETE is displayed. When an error occurs, ADJUSTMENT ERROR is displayed.

[8] SIMULATION

(Diagnostics, setting, adjustment value input, data display)

1. Outline and purpose

There are the following simulation functions to check the machine operations, troubleshoot, find causes, make various settings, improves adjustment work speeds and serviceability.

1) Various adjustments
2) Specification and function setting
3) Trouble cancel
4) Operation check
5) Counters check, setting, clear
6) Machine operation conditions (operation history) data check, clear
7) Transmission of various data (adjustment, setting, operations, counter, etc.)

The operating procedures and displays slightly differ from the form of the machine operation panel.

The typical forms are as follows:

1) Code system: Values input and mode selection are made with the 10-key pad and various function keys.
2) Switch system: Simulation mode selection is made by combination of switch setting.
3) Values and mode selection is made with various function keys. As a special one, a jumper wire is used to connect the check points on the PWB to select the desired mode.

2. Code system simulation

A. Operating procedures and operations

* Entering the simulation mode

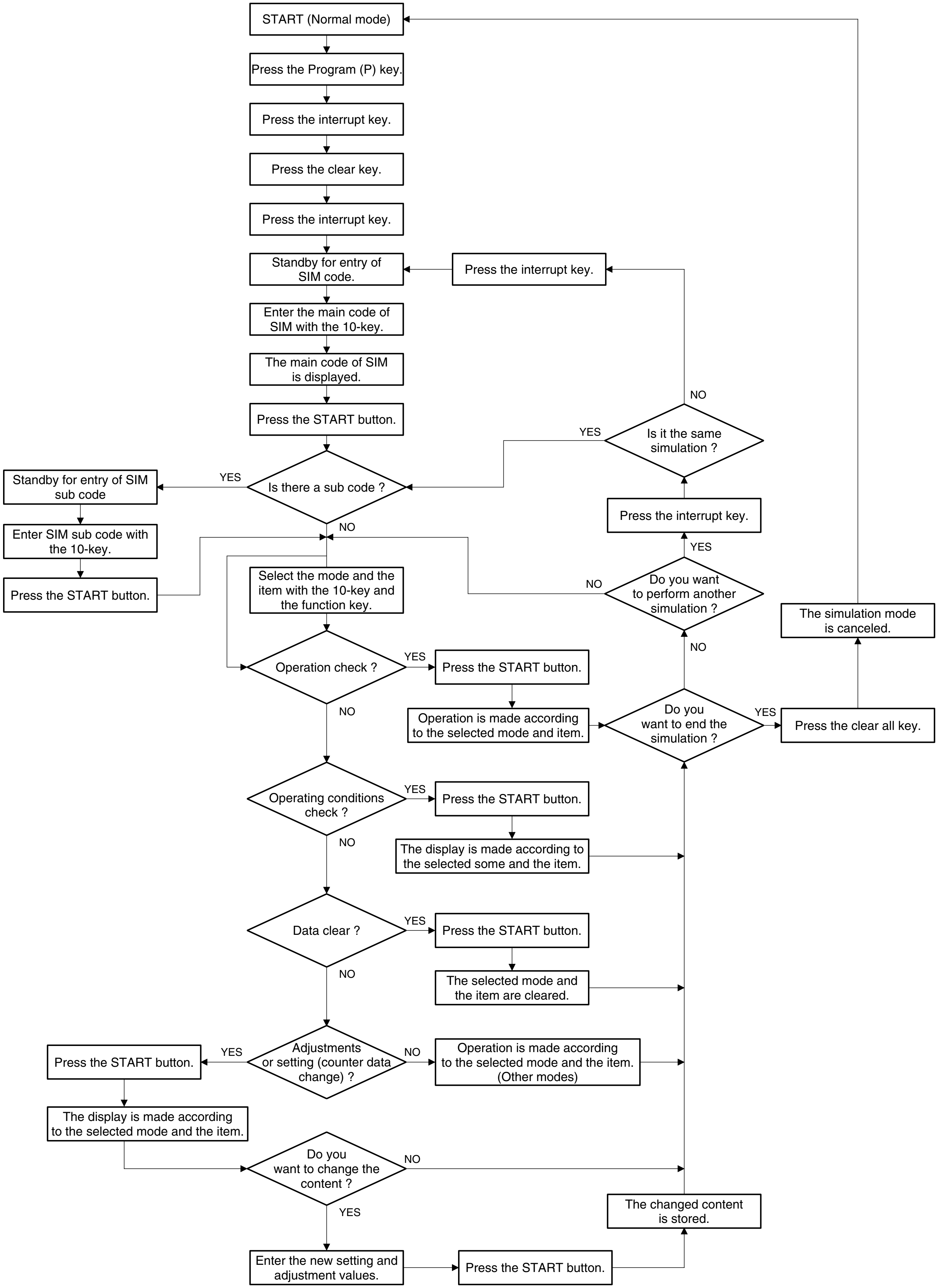
1) Program (P) key → Interrupt key → Clear key → Interrupt key (The machine enters the standby mode for the simulation main code.)
2) Enter the main code with 10-key pad. → Press START key.
3) Enter the sub code of with 10-keypad. → Press START key.
4) Select the mode and the item with the 1-key pad and the function key.
5) The machine enters the selected mode.

   To start the simulation, press the START key or the function key.

   To cancel the current simulation mode and to change the main code and the sub code, press the interrupt key.

1) Press the all clear key.

* The simulation mode is canceled and the machine returns to the normal operation mode.


START (Normal mode)
Press the Program (P) key.
Press the interrupt key.
Press the clear key.
Press the interrupt key.
Standby for entry of SIM code.
Press the interrupt key.
Enter the main code of SIM with the 10-key.
The main code of SIM is displayed.
Press the START button.
NO
YES
Is it the same simulation ?
Standby for entry of SIM sub code
YES
Is there a sub code ?
NO
Press the interrupt key.
Enter SIM sub code with the 10-key.
YES
Press the START button.
Select the mode and the item with the 10-key and the function key.
NO
Do you want to perform another simulation ?
The simulation mode is canceled.
Operation check ?
YES
Press the START button.
NO
NO
Operation is made according to the selected mode and item.
Do you want to end the simulation ?
YES
Press the clear all key.
Operating conditions check ?
YES
Press the START button.
NO
The display is made according to the selected some and the item.
Data clear ?
YES
Press the START button.
NO
The selected mode and the item are cleared.
Press the START button.
YES
Adjustments or setting (counter data change) ?
NO
Operation is made according to the selected mode and the item. (Other modes)
The display is made according to the selected mode and the item.
Do you want to change the content ?
NO
YES
The changed content is stored.
Enter the new setting and adjustment values.
Press the START button.

B. Simulation list

(1) Main/Sub

Code		Function (Purpose)	Purpose	Section		Item	
Main	Sub						
1	1	Used to check the operations of the scanner unit and its control circuit.	Operation test/check	Optical (Image scanning)		Operation	
	2	Used to check the sensors and detectors in the scanner section and the related circuits.	Operation test/check	Optical (Image scanning)		Operation	
2	1	Used to check the operations of the RADF unit and the control circuit. (The document feed operation is repeatedly performed.) (AR-C150/C250/C160/C270)	Operation test/check	ADF/RADF/UDH/SPF		Operation	
	2	Used to check the operations of the sensors and detectors in the RADF unit and the related circuits. (AR-C150/C250)	Operation test/check	ADF/RADF/UDH/SPF		Operation	
	3	Used to check the operations of the loads in the RADF unit and the related circuits. (AR-C150/C250/C160/C270)	Operation test/check	ADF/RADF/UDH/SPF		Operation	
3	2	Used to check the operations of the loads in the sorter/finisher and the related circuits. (AR-C150/C250/C160/C270)	Operation test/check	Sorter/Finisher		Operation	
	3	Used to check the operations of the loads in the sorter/finisher and the related circuits. (AR-C150/C250/C160/C270)	Operation test/check	Sorter/Finisher		Operation	
4	2	Used to check the operations of the sensors and detectors in the large capacity tray and the related circuit. (AR-C150/C250/C160/C270)	Operation test/check	Paper transport		Operation	
	3	Used to check the operations of the loads in the large capacity tray and the control circuit. (AR-C150/C250/C160/C270)	Operation test/check	Paper transport		Operation	
5	1	Used to check the operations of the operation panel display lamps and LCD and the control circuit.	Operation test/check	Operation (Display/ Operation key)		Operation	
	2	Used to check the operations of the heater lamp and the control circuit.	Operation test/check	Fixing (Fusing)		Operation	
	3	Used to check the operations of the scanner lamp and the control circuit.	Operation test/check	Optical (Image scanning)		Operation	
	4	Used to check the operations of the discharge lamp and the control circuit.	Operation test/check	Image process (Photoconductor/ Developing/Transfer/ Cleaning)	Others	Operation	
6	1	Used to check the operations of the loads (clutches and solenoids) in the paper transport system and the control circuits.	Operation test/check	Paper transport (Discharge/Switchback/ Transport)		Operation	
	2	Used to check the operation of each fan motor and its control circuit.	Operation test/check	Others		Operation	
7	1	Used to set the aging conditions.	Setting/ Operation test/check			Operation	
	6	Used to set the intermittent aging cycle.	Setting/ Operation test/check			Operation	
	8	Used to set Yes/No of warm-up time display.	Setting/ Operation test/check			Operation	
	9	Used to check the operation of each color image quality.	Operation test/check	Others		Picture quality	
8	1	Used to check and adjust the operation of each print mode developing bias voltage and the control circuit.	Adjustment/ Operation test/check	Image process (Photoconductor/ Developing/Transfer/ Cleaning)			
	2	Used to check and adjust the operation of each print mode main charger grid voltage and the control circuit.	Adjustment/ Operation test/check	Image process (Photoconductor/ Developing/Transfer/ Cleaning)			
	6	Used to check and adjust the operation of the transfer charger current and the control circuit. (Old)	Adjustment/ Operation test/check	Image process (Photoconductor/ Developing/Transfer/ Cleaning)	Copy		
9	1	Used to check the operation of the loads (clutches and solenoids) in the duplex section and the control circuit. (AR-C150/C250/C160/C270)	Operation test/check	Duplex		Operation	
	2	Used to check the operation of the sensors and detectors in the duplex section and the control circuit. (AR-C150/C250/C160/C270)	Operation test/check	Duplex		Operation	

Code		Function (Purpose)	Purpose	Section		Item	
Main	Sub						
9	4	Used to check the operation of the duplex unit alignment plate and the control circuit. (AR-C150/C250/C160/C270)	Operation test/check	Duplex		Operation	
10	0	Used to check the operation of the toner motor and the control circuit. (Note) Never execute this simulation with toner in the toner hopper. Otherwise extra toner will enter the developing section, causing overtoner. Be sure to remove the toner from the toner hopper.	Operation test/check	Image process (Photoconductor/ Developing/Transfer/ Cleaning)	Developer/ Toner Hopper	Operation	
14	0	Used to cancel self diag troubles H3, H4, and H5. Inhibition of the color copy mode operation is canceled.	Clear/Cancel (Trouble etc.)			Trouble	Error
15	0	Used to cancel self diag trouble U6 (Large capacity tray). (AR-C150/C250/C160/C270)	Clear/Cancel (Trouble etc.)	Paper transport		Trouble	
16	0	Used to cancel self diag trouble U2.	Clear/Cancel (Trouble etc.)			Trouble	Error
17	0	Used to cancel self diag troubles PF (copy inhibition command from the host computer).	Clear/Cancel (Trouble etc.)	Communication unit (TEL/LIU/MODEM etc.)		Trouble	Error
21	1	Used to set the maintenance cycle.	Setting			Specifications	Counter
22	1	Used to check the print count value in each section and each operation mode. (Used to check the maintenance timing.)	Operation data output/Check (Display/Print)			Counter	
	2	Used to check the total misfeed count and the total trouble count. (If the misfeed count is considerably great, it may be judged as necessary to repair. By dividing this count by the total count, the misfeed rate can be obtained.)	Operation data output/Check (Display/Print)			Trouble	
	3	Used to check misfeed positions and the misfeed count of each position. (If the misfeed count is considerably great, it may be judged as necessary to repair.) (Other sections than RADF section)	Operation data output/Check (Display/Print)			Trouble	Misfeed
	4	Used to check the total trouble (self diag) history.	Operation data output/Check (Display/Print)			Trouble	
	5	Used to check the ROM version of each unit (section).	Others			Software	
	6	Used to print the setting and adjustment data list.	Operation data output/Check (Display/Print)			Operation	
	7	Used to display the key operator code. (Used when the customer forgets the key operator code.)	User data output/Check (Display/Print)			Data	User data
	8	Used to check the number of uses of the staple, and the RADF. (AR-C150/C250/C160/C270)	Operation data output/Check (Display/Print)			Counter	
	9	Used to check the number of uses (print quantity) of each paper feed section.	Operation data output/Check (Display/Print)	Paper transport		Counter	
	10	Used to check the system configuration (option, internal hardware). (AR-C150/C250/C160/C270)	Operation data output/Check (Display/Print)			Specifications	Options
	12	Used to check the misfeed positions and the number (history) of misfeed at each position. (If the misfeed count is considerably great, it may be judged as necessary to repair.) (AR-C150/C250/C160/C270)	Operation data output/Check (Display/Print)	ADF/RADF/UDH/SPF		Trouble	Misfeed
24	1	Used to clear the the misfeed counter, the misfeed history, the trouble counter, and the trouble history. (After completion of maintenance, the counters are cleared.)	Data clear	Memory		Counter	
	2	Used to clear the data of the number of uses (print quantity) of each paper feed section.	Data clear	Paper transport		Counter	Paper feed
	3	Used to clear the data of the number of uses of the stapler, the RADF, and the scanner.	Data clear			Counter	
	4	Used to reset the maintenance counter.	Data clear			Counter	Maintenance
	5	Used to reset the developer counter. (The developer counter of the installed DV unit is reset.)	Data clear	Image process (Photoconductor/ Developing/Transfer/ Cleaning)	Developer/ Toner Hopper	Counter	Developer

Code		Function (Purpose)	Purpose	Section		Item	
Main	Sub						
24	7	Used to clear the OPC drum (membrane decrease) correction counter. (Performed when the OPC drum is replaced.)	Data clear	Image process (Photoconductor/ Developing/Transfer/ Cleaning)	Photo conductor	Counter	Photo conductor
	8	Used to clear the waste toner counter in the transfer section.	Data clear	Image process (Photoconductor/ Developing/Transfer/ Cleaning)	Copy	Counter	
	9	Used to clear the self print and the list print counter. "(After completion of maintenance, this counter is cleared. (AR-C150/C250/C160/C270)	Data clear	Printer		Counter	Printer
25	1	Used to check the operation of the main drive (excluding the scanner section) and the toner density sensor. (The toner density sensor output can be monitored.)	Operation test/check	Image process (Photoconductor/ Developing/Transfer/ Cleaning)	Developer/ Toner Hopper	Operation	
	2	Used to make the initial setup (automatic adjustment) of toner density when replacing developer.	Setting	Image process (Photoconductor/ Developing/Transfer/ Cleaning)	Developer/ Toner Hopper		
26	1	Used to make option setup. (When installing an option, this simulation is used to setup for that option (software). (AR-C150/C250/C160/C270)	Setting			Specifications	Options
	2	1) Used to set the paper size of the large capacity tray. (When the paper size is changed, the software setup must be changed accordingly with this simulation.) 2) Used to detect 8.5 × 13 (INCH Series) paper or documents and to set the display mode. (All paper feed modes) 3) Used to set the display form of the paper kind in the manual paper feed mode.	Setting	Paper transport		Specifications	
	3	Used to set the auditor specification mode. Setting must be made according to the use conditions of the auditor.	Setting	Auditor		Specifications	
	5	Used to set the count mode of the total counter, the developer counter, and the maintenance counter.	Setting			Specifications	Counter
	6	1)Used to set the specifications (paper, fixed copy magnification ratio, machine operations in case of an image (process) correction error) according to the destination. (AR-C150/C250/C160/C270) 2) Used to set the user logo. (AR-C100 only)	Setting			Specifications	Destination
	18	Used to set YES/NO of toner save operation. (This simulation is valid only for Japan and UK versions. It depends on Sim 26-6 (Destination) setting. For the other destinations, the same setting can be made by the user program P22. (Effective only in the monochrome copy mode)	Setting			Specifications	Operation mode (Common)
	22	Used to set the specification (language) for the destination. (AR-C150/C250/C160/C270)	Setting			Specifications	Language
	28	Used to set the AC power voltage. (For control of the fusing section heater lamp)	Setting	Power supply (DC/AC/High)		Operation	
	30	Used to set the CE mark complying operation mode. (Conforms to the soft start when driving the fusing heater lamp.)	Setting	Fixing (Fusing)		Specifications	Operation mode (Common)
	32	Used to set the fan rotating speed. (low speed)	Setting			Operation	
	35	Used to set whether the trouble history display by SIM 22-4 is displayed as one trouble or as the accumulated number of continuous troubles when two or more troubles of same kind occur continuously.	Setting			Specifications	
	45	Used to set the copy charge. (AR-C100 only)	Setting			Specifications	Others
	52	Used to set YES/NO of count up of non-copy paper (cover or insertion paper).	Setting			Specification	Operation mode
	53	Used by the user to set Enable/Disable auto color calibration (auto adjustment of color balance and density)	setting			Specifications	Operation mode
	54	Used to adjust the brightness of LCD display. (AR-C250 only)	Adjustment	LCD display		Operation	

Code		Function (Purpose)	Purpose	Section		Item	
Main	Sub						
26	55	Used to set the fusing capability (image process) in the heavy paper mode. (AR-C150) Used to select the gamma characteristics in the color copy mode. (AR-C250/C160/C270)	Setting	ICU		Operation	
27	1	Used to set the specifications for operations in case of communication trouble between the host computer and MODEM (machine side). (When communication trouble occurs between the host computer MODEM and the machine, the self diag display (U7-00) is printed and setting for inhibition of print or not is made.)	Setting	Communication unit (TEL/LIU/MODEM etc.)		Specifications	Operation mode (Common)
	2	Used to set or change the host computer/MODEM number. (This setting is required when a communication is made between the copier and the computer through MODEM.)	Setting	Communication unit (TEL/LIU/MODEM etc.)		Data	User data
	3	Used to set and change the ID numbers of the copier, the host computer/MODEM. (This setting is required when a communication is made between the copier and the computer through MODEM.)	Setting	Communication unit (TEL/LIU/MODEM etc.)		Data	Communication
	4	Used to enter the service start time and service end time for management of servicing. (The data can be checked with the host computer.)	Setting	Communication unit (TEL/LIU/MODEM etc.)		Data	Communication
	5	Used to enter the machine TAG No. (This function allows to check the TAG No. of the machine with the host computer.)	Setting	Communication unit (TEL/LIU/MODEM etc.)		Data	User data
	6	Used to set ON/OFF of service call sending to the service center by use of RIC when trouble occurred in the machine. (The service call is not sent automatically, but sent manually.)	Setting	Communication unit (TEL/LIU/MODEM etc.)		Specifications	Others
29	4	Used to set the print count system in the printer mode. (AR-C150/C250/C160/C270)	Setting	Memory		Counter	
30	1	Used to check the operation of sensors and detectors in the paper feed, paper transport, paper exit sections and the related circuits.	Operation test/check			Operation	
	2	Used to check the operation of sensors and detectors in the paper feed section and the related circuits. (The operation of the paper feed sensors and detectors can be monitored with the LCD display.)	Operation test/check	Paper transport		Operation	
33	1	Used to check the operation of the card reader and the sensors and the related circuits. (The card reader sensor operation can be monitored with the LCD display.) (AR-C150/C250/C160/C270)	Operation test/check	Others		Operation	
40	1	Used to check the operation of the manual feed tray paper size detector and the related circuit. (The operation of the manual feed tray paper size detector can be monitored with the LCD display.) (AR-C150/C250/C160/C270)	Operation test/check	Paper transport		Operation	
	2	Used to adjust the manual feed tray paper width detector detection level. (AR-C150/C250/C160/C270)	Adjustment	Paper transport		Operation	
	4	Used to check the OHP sensor and its control circuit. (AR-C150/C250/C160/C270)	Operation test/check	Paper transport		Operation	
	5	Used to adjust the detection level of the OHP sensor. (AR-C150/C250/C160/C270)	Adjustment	Paper feed		Operation	
	6	Used to set the OHP sensor adjustment parameter. (AR-C150/C250/C160/C270)	setting	Paper feed		Operation	
41	1	Used to check the operation of the document size sensor and the related circuit. (The operation of the document size sensor can be monitored with the LCD display.)	Operation test/check/ Operation data Output/Check (Display/Print)	Others		Operation	
	2	Used to adjust the document size sensor detection level.	Adjustment	Others		Operation	
	3	Used to check the operation of the document size sensor and the related circuit. (The document size sensor output level can be monitored with the LCD display.)	Operation test/check	Others		Operation	

Code		Function (Purpose)	Purpose	Section		Item	
Main	Sub						
43	1	Used to set the fusing temperature in each operation mode.	Setting	Fixing (Fusing)		Operation	
	7	Used to adjust the fusing oil supply amount. (Adjustment of oil motor ON time and oil motor ON interval)	Adjustment	Fixing (Fusing)		Operation	
44	1	Used to set enable/disable of correction operations in the image forming (process) section.	Setting	Image process (Photoconductor/ Developing/Transfer/ Cleaning)		Operation	
	2	Used to check the operation of the temperature sensor and the humidity sensor for correction of the image process section. (The sensor detection level can be monitored.)	Operation test/check			Operation	
	4	Used to set the target image (reference) density level in correction (process correction) operations in the image forming section.	Setting	Image process (Photoconductor/ Developing/Transfer/ Cleaning)		Picture quality	Density
	5	Used to set the correction start developing bias voltage in correction (process correction) operations in the image forming section.	Setting	Image process (Photoconductor/ Developing/Transfer/ Cleaning)	Developer/ Toner Hopper	Operation	
	6	Used to forcibly execute the image forming section correction (process correction).	Operation test/check	Image process (Photoconductor/ Developing/Transfer/ Cleaning)		Operation	
	9	Used to check the data on the image forming section correction (process correction) (corrected main charger grid voltage, the developing bias voltage, the laser power, etc, in each print mode). (This simulation allows to check if the correction operation is performed normally.)	Operation data output/Check (Display/Print)	Image process (Photoconductor/ Developing/Transfer/ Cleaning)		Data	Operation data (Machine condition)
	12	Used to check the toner image patch density data in the image forming section correction (process correction). This simulation allows to check if the correction operation is performed normally.)	Operation data output/Check (Display/Print)	Image process (Photoconductor/ Developing/Transfer/ Cleaning)		Data	Operation data (Machine condition)
	13	Used to adjust the image density sensor (for color) sensitivity (gain).	Adjustment	Image process (Photoconductor/ Developing/Transfer/ Cleaning)	Copy		
	14	Used to monitor the output level of the fusing temperature sensor, the machine temperature sensor, and the humidity sensor.	Operation data output/Check (Display/Print)	Others			
	16	Used to check the toner concentration correction result. (This simulation allows to check if correction is executed properly or not.)	Operation data output/Check (Display/Print)	Image process (Photoconductor/ Developing/Transfer/ Cleaning)	Developer/ Toner Hopper	Data	Operation data (Machine condition)
	20	Used to adjust the phase of OPC drum deflection. (Used to adjust deflection phases of four OPC drums.) (Old)	Adjustment	Image process (Photoconductor/ Developing/Transfer/ Cleaning)	Photo conductor	Operation	
	21	Used to store color balance adjustment data. (Half tone image correction initial setting) (After execution of color balance adjustment with SIM 46-21, this simulation must be executed.)	Setting			Picture quality	
	22	Used to check each color toner patch image density UITU in half tone image forming section correction (process correction). (This simulation allows to check if correction operation is performed normally.)	Operation data output/Check (Display/Print)	Image process (Photoconductor/ Developing/Transfer/ Cleaning)		Data	Operation data (Machine condition)
	23	Used to adjust the image density sensor position (main scan direction). (The position is adjusted when toner patch is formed.)	Adjustment	Image process (Photoconductor/ Developing/Transfer/ Cleaning)	Copy		
	24	Used to check the half tone correction result. (This simulation allows to check if correction is executed properly or not.)	Operation data output/Check (Display/Print)	Image process (Photoconductor/ Developing/Transfer/ Cleaning)		Data	Operation data (Machine condition)
	25	Used to check the half tone correction result. (This simulation allows to check if correction is executed properly or not.)	Operation data output/Check (Display/Print)	Image process (Photoconductor/ Developing/Transfer/ Cleaning)		Data	Operation data (Machine condition)

Code		Function (Purpose)	Purpose	Section		Item	
Main	Sub						
44	26	Used to execute half tone correction compulsorily.	Adjustment	Image process (Photoconductor/ Developing/Transfer/ Cleaning)		Picture quality	
	27	Used to set the half tone correction data to the default level.	Data clear	Image process (Photoconductor/ Developing/Transfer/ Cleaning)		Data	
	30	Used to check and adjust the operation of the transfer charger current and the control circuit. (New)	Adjustment/Operation test/check	Image process (Photoconductor/ Developing/Transfer/ Cleaning)	Copy		
	31	Used to adjust the phase of OPC drum deflection. (Used to adjust deflection phases of four OPC drums.) (New)	Adjustment	Image process (Photoconductor/ Developing/Transfer/ Cleaning)	Photo conductor	Operation	
46	1	Used to adjust the copy density of each mode in the low density area in the color copy mode. The copy densities all colors in the low density area are changed. (AR-C150/C250/C160/C270)	Adjustment	ICU		Picture quality	Density
	2	Used to adjust the copy density in the low density area in the monochrome copy mode. The copy density in the low density area is changed. (AR-C150/C250/C160/C270)	Adjustment	ICU		Picture quality	Density
	6	1) Used to set CCD black level offset. 2) Used to set CCD white level gain.	Adjustment	Optical (Image scanning)		Picture quality	
	10	Used to set the copy color balance (gamma for each color). (Color/Text Photo mode). (AR-C100/C150) Used to adjust the copy color balance (gamma for each color). (Color/Copy document mode) (AR-C250/C160/C270)	Adjustment	ICU		Picture quality	Color balance
	11	Used to set the copy color balance (gamma for each color). (Color/Text mode) (AR-C150/C250/C160/C270)	Adjustment	ICU		Picture quality	Color balance
	12	Used to set the copy color balance (gamma for each color). (Color/Printed Photo mode) (AR-C150) Used to adjust the copy color balance (gamma for each color). (Color/Text Printed Photo/Printed Photo mode) (AR-C250/C160/C270)	Adjustment	ICU		Picture quality	Color balance
	13	Used to set the copy color balance (gamma for each color). (Color/Photo mode) (AR-C100/C150) Used to adjust the copy color balance (gamma for each color). (Color/Text Photo/Photograph mode) (AR-C250/C160/C270)	Adjustment	ICU		Picture quality	Color balance
	14	Used to set the copy color balance (gamma for each color). (Color/Map mode) (AR-C150/C250/C160/C270)	Adjustment	ICU		Picture quality	Color balance
	15	Used to adjust the copy density (gamma). (Monochrome/Text Photo mode) (AR-C100/C150) Used to adjust the copy density (gamma). (Monochrome/Copy document mode) (AR-C250/C160/C270)	Adjustment	ICU		Picture quality	Density
	16	Used to adjust the copy density (gamma). (Monochrome/Test mode) (AR-C150/C250/C160/C270)	Adjustment	ICU		Picture quality	Density
	17	Used to adjust the copy density (gamma). (Monochrome/Printed Photo mode) (AR-C150) Used to adjust the copy density (gamma). (Monochrome/Text Printed Photo/Printed Photo mode) (AR-C250/C160/C270)	Adjustment	ICU		Picture quality	Density
	18	Used to adjust the copy density (gamma). (Monochrome/Photo mode) (AR-C100/C150) Used to adjust the copy density (gamma). (Monochrome/Text Photo/Photo mode) (AR-C250/C160/C270)	Adjustment	ICU		Picture quality	Density

Code		Function (Purpose)	Purpose	Section		Item	
Main	Sub						
46	19	Used to adjust the copy density (gamma). (Monochrome/Map mode)(AR-C150/C250/C160/C270)	Adjustment	ICU		Picture quality	Density
	20	Used to adjust the copy density (gamma). (Color/ All modes) (The copy color balances (gamma) in all copy modes are changed.) The operations are the same as SIM 46-21, but printing is not performed.	Adjustment	ICU		Picture quality	Color balance
	21	Used to adjust the copy color balance (gamma). (Color/All modes) (The color balance (gamma) in all the copy modes is changed. Printing is performed while adjustment.	Adjustment	ICU		Picture quality	Color balance
	22	Used to make the print (printer engine) color balance (gamma) adjustment. (Auto adjustment) (AR-C100)	Adjustment	ICU		Picture quality	Color balance
	23	Used to the half tone high density correction operation. (AR-C150/C250/C160/C270)	Setting	ICU		Picture quality	Density
	24	Used to adjust the print (printer engine) color balance (gamma). (Auto adjustment) (For AR-C150/C250/C160/C270)	Adjustment	ICU		Picture quality	Color balance
	25	Used to adjust the copy color balance. (Single color copy mode) (AR-C250/C160/C270)	Adjustment	ICU		Picture quality	Color balance
	26	Used to set the copy color balance adjustment value to the default. (Single color copy mode) (AR-C250/C160/C270)	Setting	ICU		Picture quality	Color balance
	27	Used to adjust the black toner component image gamma. (Adjustment of the reproduction capability of black characters and lines) (AR-C250/C160/C270)	Adjustment	ICU		Picture quality	Density
48	1	Used to adjust the copy magnification ratio (main scan, sub scan direction).	Adjustment			Picture quality	Image size/ Magnification
	6	Used to adjust each motor rotating speed.	Adjustment			Operation	
49	1	Used to revise the version of the body firmware. (AR-C150/C250/C160/C270)	Other	ICU		Software	
	2	Used to set the data communication speed in version up of the body firmware. (AR-C150/C250/C160/C270)	Setting	ICU		Operation	
50	1	Used to adjust the copy image position and the void area (image loss) on print paper in the copy mode. (The similar adjustment can be made also by SIM 50-2 (Simple method).)	Adjustment			Picture quality	Image position
	2	Used to adjust the copy image position and the void area (image loss) on print paper in the copy mode.(Simple method) (The same content of SIM 50-1. However this simulation is easier to perform.)	Adjustment			Picture quality	Image position
	10	Used to adjust the print image center position. (Adjusted separately for each paper feed section.)	Adjustment	ICU		Picture quality	Image position
	12	Used to adjust the print image center position. (Adjusted separately for each document mode.)	Adjustment	ICU		Picture quality	Image position
	20	Used to adjust color registration in the main scan direction. (Manual adjustment)	Adjustment	ICU		Picture quality	Image position
	21	Used to adjust the sub scan direction color registration. (Manual adjustment)	Adjustment	ICU		Picture quality	Image position
	22	Used to adjust the color registration (in the main/sub scanning direction). The color registration adjustment (automatic adjustment) can be performed both in the main and the sub scanning directions at the same time. (AR-C250) (New version of AR-C150) (AR-C160) (Auto adjustment)	Adjustment	ICU		Picture quality	Image position
51	1	Used to adjust the transfer operation and ON timing of the transfer section separation pawl.	Adjustment	Image process (Photoconductor/ Developing/Transfer/ Cleaning)	Copy	Operation	

Code		Function (Purpose)	Purpose	Section		Item	
Main	Sub						
51	2	Used to adjust the contact pressure of paper on the resist roller of each section (each paper feed and duplex feed of the copier). (This adjustment is required when the print image position variations are considerably great or when paper jams occur frequently.)	Adjustment	Paper transport (Discharge/Switchback/ Transport)		Operation	
52	1	Used to adjust the duplex print mode stacking capacity (Used to adjust the stop position of the duplex unit paper tray width alignment plate. The home position of the width alignment plate is changed by software.) (AR-C150/C250/C160/C270)	Adjustment	Duplex		Operation	
53	1	Used to adjust the document stop position in each operation mode of ADF/RADF. (AR-C150/C250/C160/C270)	Adjustment	ADF/RADF/UDH/SPF		Operation	
53	2	Used to adjust the optical sensor sensitivity in ADF/RADF. (AR-C150/C250/C160/C270)	Adjustment	ADF/RADF/UDH/SPF		Operation	
60	1	Used to check the operation (read/write) of the ICU main PWB (image DRAM).	Operation test/check	ICU		Operation	
61	1	Used to check the operation of the scanner (exposure) unit.	Operation test/check	Laser (Exposure)		Operation	
	4	Used to adjust skew of the scanner (writing) unit laser beam.	Adjustment	Laser (Exposure)		Operation	
63	1	Used to check the result of shading correction. (The shading correction data is displayed.)	Operation data output/Check (Display/Print)	Laser (Exposure)		Operation	
	3	Used to adjust CCD color balance (gamma).	Adjustment	Optical (Image scanning)		Picture quality	Color balance
	5	Used to set CCD color balance (gamma) default.	Setting	Optical (Image scanning)		Picture quality	Color balance
	6	Used to check the color balance (gamma) adjustment . (Check patch)	Adjustment/ Operation data output/Check (Display/Print)	ICU		Picture quality	Color balance
	7	Used to set the target color balance (gamma) for auto color balance adjustment. The standard color balance (gamma) or an optional color balance (gamma) is set as the service target. (AR-C150/C250/C150)	setting	ICU		Picture quality	Color balance
	8	Used to set the target color balance (gamma) for auto color balance adjustment (SIM 46-24). The service target is set to the default (standard) color balance (gamma). (AR-C150/C250/C160/C270)	setting	ICU		Picture quality	Color balance
	9	Used to adjust the CCD color balance (gamma). (Copy document mode) (AR-C250/C160/C270)	Setting	Optical (Image scanning)		Picture quality	Color balance
	10	Used to set the default of the CCD color balance (gamma). (Copy to copy mode) (AR-C250/C160/C270)	Setting	Optical (Image scanning)		Picture quality	Color balance
64	1	Used to check the operation (self print) of the printer section. (The print pattern, the paper feed mode, the print mode, the print quantity, and the density can be set optionally.)	Operation test/check	Printer		Operation	
	2	Used to print the color patch image (adjustment pattern). The above color patch image (adjustment pattern) is outputted according to the currently adjusted color balance (gamma). Use SIM 63-7 to read the color patch image (adjustment pattern), which can be used as the service target of the automatic color balance (gamma) adjustment.	Adjustment/setup/ operation data output, adjustment (display, print)			Picture quality	Color balance
	3	Used to check the operation (self print) of the printer section. (The print pattern, the paper feed mode, the print mode, the print quantity, and the density can be set optionally.) (monochrome) (AR-C160)	Operation test/check	Printer		Operation	
65	1	Used to adjust the touch panel (LCD display section) detection position.	Adjustment	Operation (Display/ Operation key)			
	2	Used to check the result of the touch panel (LCD display) detection position adjustment. (The coordinates are displayed.)	Operation data output/Check (Display/Print)	Operation (Display/ Operation key)			

C. Details of simulation

6

6 - 2

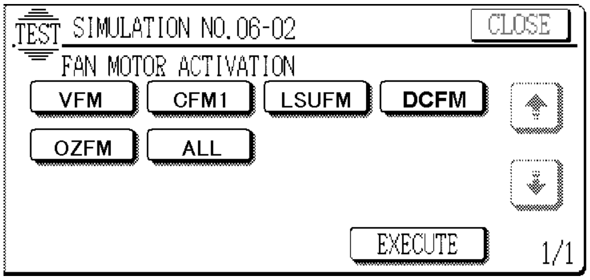
Purpose	Operation test/check
Function (Purpose)	Used to check the operation of each fan motor and its control circuit.
Section	Others
Item	Operation
Operation/ Procedure	1. The loads which can be checked are displayed. Select one you want to check.

2. Press the [EXECUTE] key.

   The selected load is operated. During operation, the [EXECUTE] key is highlighted. To interrupt the operation of the load, press the [EXECUTE] key.

Each fan motor rotating operation is checked.

VFM : Exhaust fan motor
CFM1 : Optical cooling fan motor
LSUFM : LSU cooling fan motor
OZFM : Ozone exhaust fan motor
ALL : All fan motors
DCFM : Power unit fan motor



22

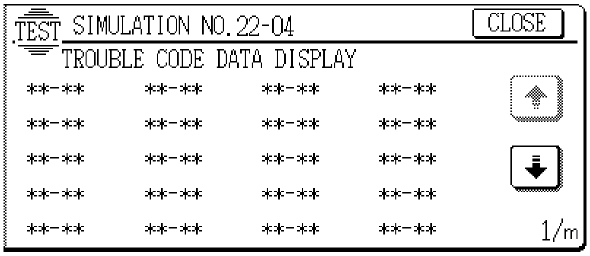
22 - 4

Purpose	Operation data output/Check (Display/Print)
Function (Purpose)	Used to check the total trouble (self diag) history.
Item	Trouble
Operation/ Procedure	The trouble history error codes are displayed sequentially from the latest one. Max. 40 items of information can be stored, and the oldest one is deleted sequentially. The machine condition can be presumed according to this data.

Model	Main code	Sub code	Content
AR-C250	A0	0	ROM trouble (PCU MAIN PWB)
AR-C100, AR-C150, AR-C250, AR-C160, AR-C270	C1	10	Charger trouble (Black)
		11	Charger trouble (Cyan)
		12	Charger trouble (Magenta)
		13	Charger trouble (Yellow)
	E7	10	Shading trouble (Black correction)
		11	Shading trouble (White correction)
		20	Laser trouble (Black)
		21	Laser trouble (Cyan)
		22	Laser trouble (Magenta)
		23	Laser trouble (Yellow)
AR-C100, AR-C150, AR-C250, AR-C160, AR-C270	E7	24	Laser BD detection trouble (Black)
		25	Laser BD detection trouble (Cyan)
		26	Laser BD detection trouble (Magenta)
		27	Laser BD detection trouble (Yellow)
		30	ICU PWB ROM trouble
		90	ICU-PCU communication trouble (PCU detection)
	E8	00	ICU PWB - PCU PWB communication trouble
		01	ICU PWB - PCU PWB communication trouble
AR-C250, AR-C160, AR-C270	F1	0	Communication trouble between PCU MAIN PWB - Finisher control PWB (Detected by PCU MAIN PWB)
		2	Finisher paper exit trouble (Finisher side detection)
		10	Finisher staple trouble (Finisher side detection)
		11	Finisher bundle process trouble (Finisher side detection)
		15	Finisher tray lift trouble (Finisher side detection)
		19	Finisher alignment trouble (Front side) (Finisher side detection)
		20	Finisher alignment trouble (Rear side) (Finisher side detection)
AR-C150, AR-C250, AR-C160, AR-C270		70	Sorter communication trouble (Machine detection)
		80	Sorter power trouble (Sorter detection)
		81	Sorter transport motor trouble (Sorter detection)
		83	Sorter push bar motor trouble (Sorter detection)
		87	Sorter staple unit oscillation motor trouble (Sorter detection)
		89	Sorter bin shift motor trouble (Sorter detection)
		91	Bin paper sensor auto adjustment trouble (Sorter detection)
AR-C100, AR-C150, AR-C250, AR-C160, AR-C270	F2	40	Toner control sensor open (Black)
		41	Toner control sensor open (Cyan)
		42	Toner control sensor open (Magenta)
		43	Toner control sensor open (Yellow)
		44	Black image density sensor trouble (Transfer belt surface reflection rate abnormality)
		45	Color image density sensor trouble (Calibration plate surface reflection rate abnormality)
		50	Process control trouble (Drum marking read error: Black)
		51	Process control trouble (Drum marking read error: Cyan)
		52	Process control trouble (Drum marking read error: Magenta)
		53	Process control trouble (Drum marking read error: Yellow)
		54	Drum marking sensor gain adjustment error (Black)
		55	Drum marking sensor gain adjustment error (Cyan)
		56	Drum marking sensor gain adjustment error (Magenta)
		57	Drum marking sensor gain adjustment error (Yellow)
		58	Process humidity sensor trouble
		63	Process thermistor trouble (Yellow)

Model	Main code	Sub code	Content
AR-C100, AR-C150, AR-C250, AR-C160, AR-C270	F2	80	Half tone process control 1st batch trouble (Black)
		81	Half tone process control 1st batch trouble (Cyan)
		82	Half tone process control 1st batch trouble (Magenta)
		83	Half tone process control 1st batch trouble (Yellow)
		84	Half tone process control 2nd batch trouble (Black)
		85	Half tone process control 2nd batch trouble (Cyan)
		86	Half tone process control 2nd batch trouble (Magenta)
		87	Half tone process control 2nd batch trouble (Yellow)
		90	Half tone process control error
	F3	12	Cassette 1 lift up trouble
		22	Cassette 2 lift up trouble
		32	Cassette 3 lift up trouble
		42	Cassette 4 lift up trouble
AR-C150, AR-C250, AR-C160, AR-C270	F9	00	ICU-PRT communication trouble (ICU detection)
AR-C100, AR-C150, AR-C250, AR-C160, AR-C270	H2	00	Thermistor open/Fusing unit not installed (HL1)
		01	Thermistor open/Fusing unit not installed (HL2)
		02	Thermistor open/Fusing unit not installed (HL3)
AR-C100, AR-C150, AR-C250	H2	03	Thermistor open/Fusing unit not installed (HL4) The thermistor is open. (The input voltage of 4.6V or more is detected.) The fusing unit is not installed.
	H3	00	Fusing section high temperature trouble (HL1)
		01	Fusing section high temperature trouble (HL2)
		02	Fusing section high temperature trouble (HL3)
		03	Fusing section high temperature trouble (HL4) The fusing temperature exceeds 220 C. (The input voltage of 0.85V or less is detected.) Thermitor trouble, control PWB trouble, fusing section connector trouble, AC power trouble
	H4	00	Fusing section low temperature trouble (HL1)
		01	Fusing section low temperature trouble (HL2)
	H5	01	3-time continuous detection of POD/DPID not-reaching jam
	H6	00	Fusing oil remaining quantity abnormality detection
	H7	00	AC input voltage (HLV) abnormality detection
AR-C100, AR-C150, AR-C250, AR-C160, AR-C270	L1	00	Mirror feed trouble
	L3	00	Mirror return trouble
	L4	03	Fusing motor trouble
		04	Developing motor trouble (Black)
		05	Developing motor trouble (Color)
		06	Transfer belt lift motor trouble

Model	Main code	Sub code	Content
AR-C100, AR-C150, AR-C250, AR-C160, AR-C270	L6	10	Polygon motor lock detection (Black)
		11	Polygon motor lock detection (Cyan)
		12	Polygon motor lock detection (Magenta)
		13	Polygon motor lock detection (Yellow)
	L8	01	No full wave signal
		02	Full wave signal abnormality
	PF	00	RIC copy inhibition signal reception
	U0	00	OPE-PCU sub communication trouble (OPE/PCU detection)
		80	PCU-PCU sub communication trouble (PCU detection)
	U2	00	EEPROM read/write error (PCU detection)
		11	Counter check sum error(PCU)
		12	Adjustment value check sum error (PCU)
		20	EEPROM read/write error (ICU)
		21	Counter check sum error (ICU)
		22	Adjustment value check sum error (ICU)
		30	Manufacturing No. data discrepancy
	U4	00	ADU communication trouble
		02	ADU alignment plate operation abnormality
		12	ADU transport motor trouble
	U5	00	ADF communication trouble
		01	ADF resist sensor error
		02	ADF repulsion sensor error
		03	ADF timing sensor error
		11	Paper fed motor operation trouble
AR-C150, AR-C250, AR-C160, AR-C270	U6	09	LCC lift motor trouble
		20	LCC communication trouble
		21	LCC transport motor trouble
		22	LCC 24V power abnormality
AR-C100, AR-C150, AR-C250, AR-C160, AR-C270	U7	00	RIC communication trouble
	UC	00	CPT board communication trouble
		01	CPT board program hung up
		02	CPT board ASIC abnormality
		03	CPT board ROM abnormality
		04	CPT board RAM abnormality
		05	CPT board model code abnormality



SIMULATION NO.22-04

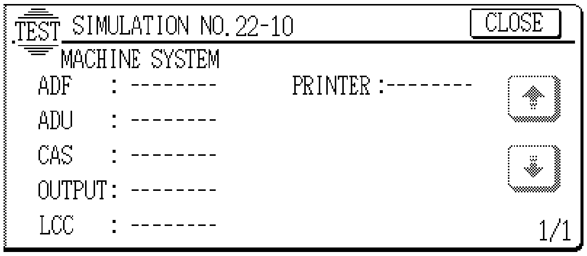
TROUBLE CODE DATA DISPLAY

```
**-**   **-**   **-**   **-**
**-**   **-**   **-**   **-**
**-**   **-**   **-**   **-**
**-**   **-**   **-**   **-**
**-**   **-**   **-**   **-**
```

22 - 10

Purpose	Operation data output/Check (Display/Print)
Function (Purpose)	Used to check the system configuration (option, internal hardware). (AR-C150/C250/C160/C270)
Item	Specifications Options
Operation/ Procedure	This simulation allows to check the system configuration. The devices and the option units which are installed are displayed with the model names, etc.

	Display	Content
DF	-----	Document feed unit not installed
	AR-RF1	Document feed unit (RADF) installed
ADU	-----	Duplex module not installed
	AR-DU2 (N)	Duplex module installed
CAS	-----	Cassette not installed
	AR-CS2 (N)	Cassette installed
OUTPUT	-----	After-treatment unit not installed
	AR-SS2	20-bin staple sorter installed
	AR-FN4	Finisher installed
LCC	-----	Large capacity paper feed tray not installed
	AR-LC2 (N)	Large capacity paper feed tray installed
PRINTER	-----	Printer expansion kit not installed
	AR-PE1/PE2	Printer expansion kit (Japan) installed



SIMULATION NO.22-10
MACHINE SYSTEM
ADF : -------- PRINTER :--------
ADU : --------
CAS : --------
OUTPUT: --------
LCC : --------

26

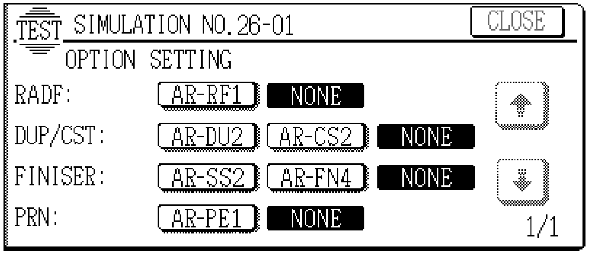
26 - 1

Purpose	Setting
Function (Purpose)	Used to make option setup. (When installing an option, this simulation is used to setup for that option (software). (AR-C150/C250/C160/C270)
Item	Specifications Options
Operation/ Procedure	Enter the code number corresponding to the option installation with the 10-key pad and press the [OK] key. When an option is installed or removed, this setting must be changed accordingly. If this setting is improper, an error message is displayed.

Item	Set value	Connection option
ADF type	0	No connection
	1	AR-RF1
CST type	0	No connection
	1	AR-DU2 (N)
	2	AR-CS2 (N)
FIN type	0	No connection
	1	AR-SS2
	2	AR-FN4
PRN type	0	No connection
	1	AR-PE1/PE2

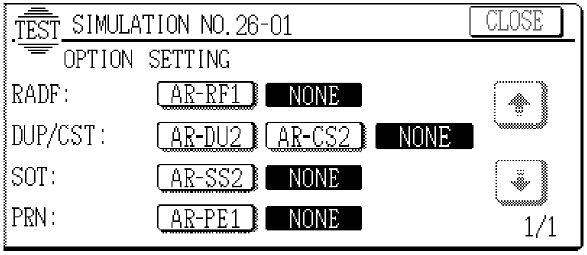
Default: 0 (No connection) NONE

(Default value: 0) (AR-C250)



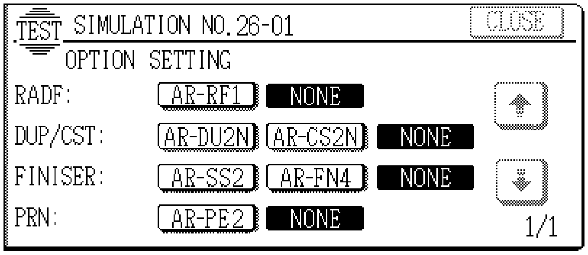
SIMULATION NO.26-01
OPTION SETTING
RADF: AR-RF1 NONE
DUP/CST: AR-DU2 AR-CS2 NONE
FINISER: AR-SS2 AR-FN4 NONE
PRN: AR-PE1 NONE

(Default value: 0) (AR-C150)



SIMULATION NO.26-01
OPTION SETTING
RADF: AR-RF1 NONE
DUP/CST: AR-DU2 AR-CS2 NONE
SOT: AR-SS2 NONE
PRN: AR-PE1 NONE

(Default value: 0) (AR-C160/C270)



SIMULATION NO.26-01
OPTION SETTING
RADF: AR-RF1 NONE
DUP/CST: AR-DU2N AR-CS2N NONE
FINISER: AR-SS2 AR-FN4 NONE
PRN: AR-PE2 NONE

26 - 6

Purpose	Setting
Function (Purpose)	1) Used to set the specifications (paper, fixed copy magnification ratio, machine operations in case of an image (process) correction error) according to the destination. (AR-C150/C250/C160/C270) 2) Used to set the user logo. (AR-C100 only)
Item	Specifications Destination
Operation/ Procedure	

U.S.A.	United States of America
Canada	Canada
Inch	Inch series, other destinations
Japan	Japan
AB_B	AB series (B5 detection) other destinations
Europe	Europe
U.K.	United Kingdom
Aus.	Australia
AB_A	AB series (A5 detection) other destinations

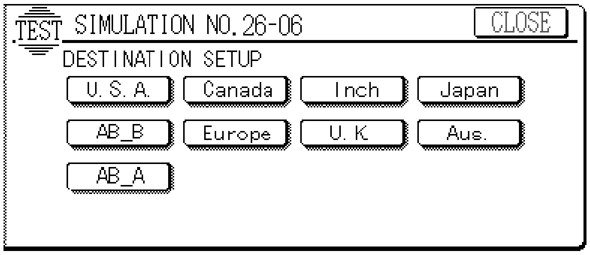
* When the destination is changed with SIM 26-6, the following data are also changed.

(AR-C150)

SIM No.	Content	Set value								
		U.S.A.	Canada	Inch	Japan	AB_B	Europe	U.K.	Aus.	AB_A
SIM26-02	Manual feed paper kind display	2	2	2	0	1	1	1	1	1
SIM26-02	LEGAL set value	0	0	0	0	0	0	0	1	0
SIM26-28	AC power voltage	120	120	120	100	100	230	230	230	230
SIM26-30	CE mark Enable/Disable	0	0	0	0	0	1	1	1	1
SIM26-52	White paper exit count up	1	1	1	0	1	1	1	0	1
SIM43-1A	Normal mode control temperature (HL1)	180	180	180	170	170	180	180	180	180
SIM43-1B	Normal mode control temperature (HL2)	135	135	135	125	125	135	135	135	135
SIM43-1C	Ready state control temperature (HL1)	187	187	187	177	177	187	187	187	187
SIM43-1D	Ready state control temperature (HL2)	142	142	142	132	132	142	142	142	142
SIM26-55	Priority to fusing over image quality in color copy with heavy paper Enable/Disable	1	1	2	2	2	2	2	2	2

(AR-C250)

SIM No.	Content	Set value								
		U.S.A.	Canada	Inch	Japan	AB_B	Europe	U.K.	Aus.	AB_A
SIM26-02	Manual feed paper kind display	2	2	2	0	1	1	1	1	1
SIM26-02	LEGAL set value	0	0	0	0	0	0	0	1	0
SIM26-28	AC power voltage	120	120	120	100	100	230	230	230	230
SIM26-30	CE mark Enable/Disable	0	0	0	0	0	1	1	1	1
SIM26-52	White paper exit count up	1	1	1	0	1	1	1	0	1
SIM26-55	Priority to fusing over image quality in color copy with heavy paper Enable/Disable	1	1	2	2	2	2	2	2	2
SIM48-6C	Fusing motor speed correction value (L)	40	40	40	50	50	40	40	40	40
SIM48-6D	Fusing motor speed correction value (S)	40	40	40	45	45	40	40	40	40
SIM43-1A	Normal mode (HL1)	170	170	170	170	170	170	170	170	170
SIM43-1B	Normal mode (HL2)	125	125	125	140	140	125	125	125	125
SIM43-1C	Ready state (HL1)	177	177	177	177	177	177	177	177	177
SIM43-1D	Ready state (HL2)	132	132	132	140	140	132	132	132	132
SIM43-1E	Energy-save mode (HL1)	136	136	136	136	136	136	136	136	136
SIM43-1F	Reset from the pre-heat mode (HL1)	148	148	148	148	148	148	148	148	148
SIM43-1I	Heavy paper mode 1	200	200	200	200	200	200	200	200	200
SIM43-1J	Heavy paper mode 2	155	155	155	155	155	155	155	155	155


SIMULATION NO.26-06

DESTINATION SETUP

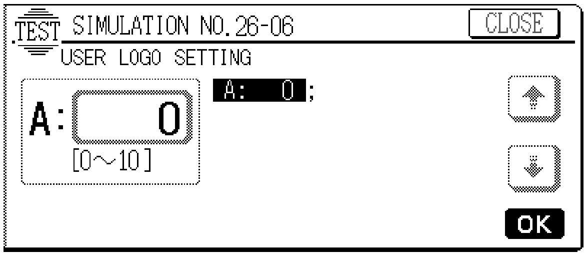
AR-C100

User logo setting

Select the desired logo and press the [OK] key. (Logo displayed on the LCD)

Item	Content	Upper limit	Lower limit	Default value
A	User logo setting	10	0	0

Item	Set value	Content
A	0	Without logo
	1	Family mart
	2	Sunkus
	3	Daily Yamazaki
	4	Camel mart
	5	Daiwa
	6	Poplar
	7 – 10	Without logo


SIMULATION NO.26-06

USER LOGO SETTING

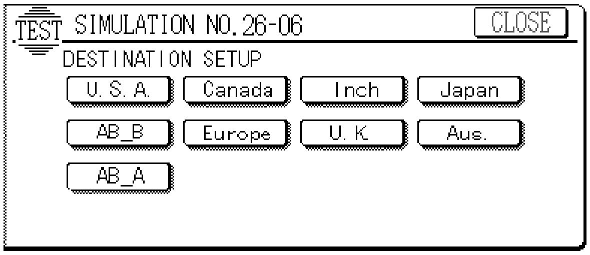
A: 0

[0~10]

A: 0;

(AR-C160/C270)

SIM No.	Content	Set value								
		U.S.A	Canada	Inch	Japan	AB_B	Europe	U.K.	Aus.	AB_A
SIM26-02	Manual feed paper kind display	2	2	2	0	1	1	1	1	1
SIM26-02	LEGAL set value	0	0	0	0	0	0	0	P	O
SIM26-28	AC power voltage	120	120	120	100	100	230	230	230	230
SIM26-30	CE mark Enable/Disable	0	0	0	0	0	1	1	1	1
SIM26-52	White paper exit count up	1	1	1	0	1	1	1	O	1
SIM26-55	Thick paper image process mode setup	DISABLE	DISABLE	DISABLE	DISABLE	DISABLE	DISABLE	DISABLE	DISABLE	DISABLE
SIM43-1A	Normal mode control temperature (HL1)	170	170	170	170	170	170	170	170	170
SIM43-1B	Normal mode control temperature (HL2)	125	125	125	125	125	125	125	125	125
SIM43-1C	Ready state control temperature (HL1)	177	177	177	177	177	177	177	177	177
SIM43-1D	Ready state control temperature (HL2)	132	132	132	132	132	132	132	132	132
SIM43-1E	Control temperature in the energy-save mode (HL1)	146	146	146	146	146	146	146	146	146
SIM43-1F	Control temperature when resetting from pre-heat to monochrome (HL1)	158	158	158	158	158	158	158	158	158
SIM43-1I	Control temperature in the thick mode 2 (HL1)	200	200	200	200	200	200	200	200	200
SIM43-1J	Control temperature in the thick mode 2 (HL2)	155	155	155	155	155	155	155	155	155
SIM43-1K	OHP mode control temperature (HL1)	180	180	180	180	180	180	180	180	180
SIM43-1L	OHP mode control temperature (HL2)	175	175	175	175	175	175	175	175	175
SIM48-6C	Fusing motor speed correction adjustment value (L)	50	50	50	55	55	50	50	50	50
SIM48-6D	Fusing motor speed correction adjustment value (S)	55	55	55	60	60	55	55	55	55



26 - 32

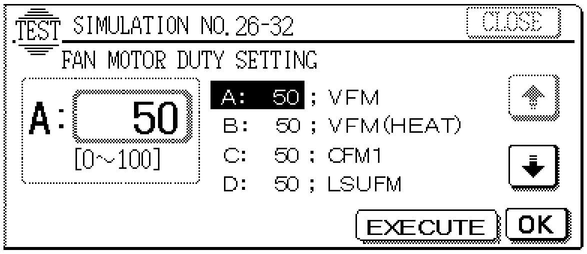
Purpose	Setting
Function (Purpose)	Used to set the fan rotating speed (low speed).
Item	Operation
Operation/ Procedure	1. Select the fan motor whose speed is to be adjusted with [↑] and [↓] keys and press the [OK] key.

2. Enter the adjustment value with the 10-key.
3. Press the [OK] key.

The adjustment value entered in procedure 2 is set.
In the fan motor low speed rotation mode (ready condition), the rotating speed is controlled with this adjustment value.
The adjustment value means PWM duty %.

		Default value
VFM	: Exhaust fan motor 1	15
VFM (HEAT)	: Exhaust fan motor 1 (Pre-heating)	15
CFM1	: Optical cooling fan motor 1	0
LSUFM	: LSU cooling fan motor	15
DCFM	: DC power cooling fan motor	0

(AR-C160/C270)



A: 50
[0~100]
A: 50 ; VFM
B: 50 ; VFM(HEAT)
C: 50 ; CFM1
D: 50 ; LSUFM

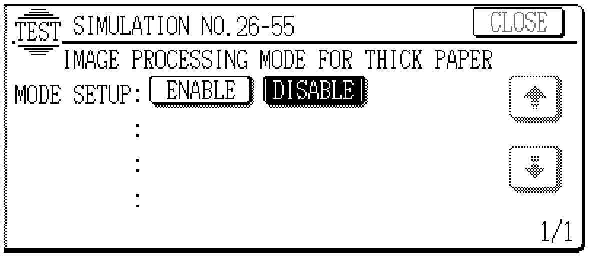
26 - 55

Purpose	Setting
Function (Purpose)	Used to set the fusing capability (image process) in the heavy paper mode. (AR-C150) Used to select the gamma characteristics in the color copy mode. (AR-C250/C160/C270)
Item	Operation
Operation/ Procedure	(AR-C150) Press the ENABLE or the DISABLE key to set. This simulation is used to give priority to the fusing capability over the image quality in color copy with heavy paper.

The quantity of black toner which forms images on the paper is reduced in the image process to have better fusing.
It is advisable to use this setting when poor fusing results from color copy with heavy paper.

When ENABLE (priority to the fusing capability over image quality) is selected, the black density is slightly reduced to shift the color phase. Normally set to DISABLE.

Setup	Operation/Effect	Default
ENABLE	K toner is reduced and the black reproduction is supplemented by Y/M/C toner in image process./Fusing capability is increased when heavy paper is used.	U.S.A./CANADA
DISABLE	Normal image process	Except for U.S.A./CANADA


TEST SIMULATION NO.26-55
IMAGE PROCESSING MODE FOR THICK PAPER
MODE SETUP: ENABLE DISABLE
:
:
:
1/1

∗ In some AR-C100/C150 machines with an old ROM version, this simulation is added from the middle of the production.
In the AR-C150 machines with an old ROM version, upgrading of the ROM version allows to perform this simulation.

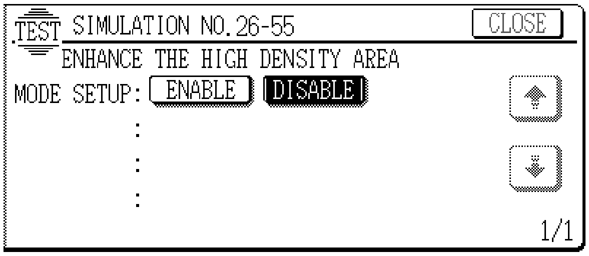
PCU MAIN PWB	Flash ROM	later than 5.07
OPERATION PWB	Flash ROM	later than 5.05
ICU MAIN PWB	Flash ROM	later than 5.09

(AR-C250/C160/C270)

Press the ENABLE / DISABLE key to select.

This is used to set the order of priority between sharpness and gradation in the color copy mode. Setup is made by changing the gamma in the high density area.

Setup	Operation/Effect	Default
ENABLE	The contrast in the color copy mode is increased. (Priority is given to sharpness.)	UK (AR-C250)
DISABLE	Normal gamma (Priority is given to gradation.)	Except for UK (AR-C250) / (AR-C160) / (AR-C270)


TEST SIMULATION NO.26-55
ENHANCE THE HIGH DENSITY AREA
MODE SETUP: ENABLE DISABLE
:
:
:
1/1

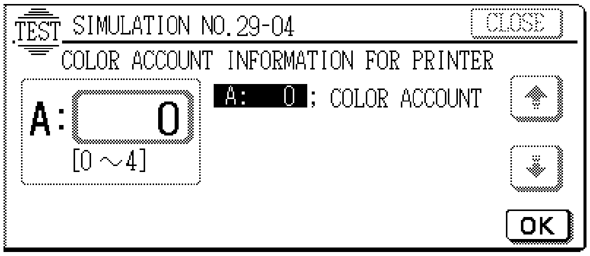
29

29 - 4

Purpose	Setting
Function (Purpose)	Used to set the print count system in the printer mode. (AR-C150/C250/C160/C270)
Section	Memory
Item	Counter
Operation/ Procedure	Set whether to count all the pages as color print pages or to count color pages and monochrome pages separately in the printer mode when a print job of mixed documents of color pages and monochrome pages is performed.

<table>
<tr><th rowspan="2">Item</th><th rowspan="2">Set value</th><th colspan="3">Content</th><th rowspan="2">Transfer belt position</th></tr>
<tr><th colspan="2">Total counter</th><th>Maintenance counter</th></tr>
<tr><td rowspan="7">A</td><td>0</td><td colspan="2">All the pages are counted by the color counter.</td><td>All the pages are counted by the color counter.</td><td>Color mode</td></tr>
<tr><td>1</td><td colspan="2">Color pages and black-and-white pages are counted separately.</td><td>All the pages are counted by the color counter.</td><td>Color mode</td></tr>
<tr><td>2</td><td colspan="2">Color pages and black-and-white pages are counted separately.</td><td>Color pages and black-and-white pages are counted separately.</td><td>Every time when the print page is switched to the color page/black-and-white page, the transfer belt position is switched to the color/black-and-white mode position accordingly.</td></tr>
<tr><td rowspan="2">3
∗1</td><td>Single</td><td>Color pages and black-and-white pages are counted separately.</td><td>Color pages and black-and-white pages are counted separately.</td><td>Every time when the print page is switched to the color page/black-and-white page, the transfer belt position is switched to the color/black-and-white mode position accordingly.</td></tr>
<tr><td>Duplex</td><td>All the pages are counted by the color counter.</td><td>All the pages are counted by the color counter.</td><td>Color mode</td></tr>
<tr><td rowspan="2">4
∗1</td><td>Single</td><td>Color pages and black-and-white pages are counted separately.</td><td>Color pages and black-and-white pages are counted separately.</td><td>Every time when the print page is switched to the color page/black-and-white page, the transfer belt position is switched to the color/black-and-white mode position accordingly.</td></tr>
<tr><td>Duplex</td><td>Color pages and black-and-white pages are counted separately.</td><td>All the pages are counted by the color counter.</td><td>Color mode</td></tr>
</table>

∗1: AR-C250/C270 only



SIMULATION NO.29-04

COLOR ACCOUNT INFORMATION FOR PRINTER

A: 0

[0 ~4]

A: 0 : COLOR ACCOUNT

43

43 - 1

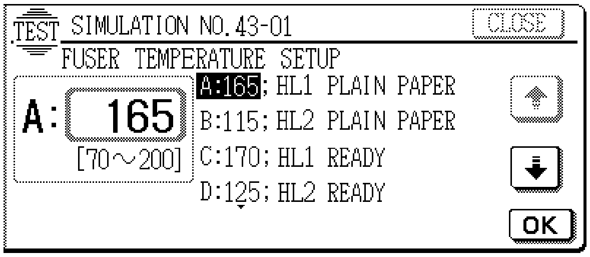
Purpose	Setting
Function (Purpose)	Used to set the fusing temperature in each operation mode.
Section	Fixing (Fusing)
Item	Operation
Operation/ Procedure	1. Select the kind of lamps and the operation mode with [↑], [↓] keys. 2. Enter the set value with the 10-key. 3. Press the [OK] key to set the fusing temperature set in procedure 2.

(AR-C100/C150)

Display	Content	Set range	Set value									NOTE
			U.S.A	Canada	Inch	Japan	AB_B	Europe	U.K	Aus.	AB_A	
A: HL1 PLAIN PAPER	Normal mode control temperature (HL1)	70 to 200	180	180	180	170	170	180	180	180	180	
B: HL2 PLAIN PAPER	Normal mode control temperature (HL2)	70 to 200	135	135	135	125	125	135	135	135	135	
C: HL1 READY	Ready state control temperature (H1)	70 to 200	187	187	187	177	177	187	187	187	187	
D: HL2 READY	Ready state control temperature (H2)	70 to 200	142	142	142	132	132	142	142	142	142	
E: HL1 E_STAR	Energy save mode control temperature (HL1)	70 to 200	140	140	140	140 (137)	140	140	140	140	140	( ) AR-C100
F: HL1 PRE_BK	Control temperature (HL1) when resetting to B/W from preheat	70 to 200	155	155	155	155 (152)	155	155	155	155	155	( ) AR-C100
G: HL1 HEAVYPAPER	Heavy paper mode control temperature (HL1)	70 to 200	200	200	200	200	200	200	200	200	200	AR-C150 only
H: HL2 HEAVYPAPER	Heavy paper mode control temperature (HL2)	70 to 200	155	155	155	155	155	155	155	155	155	AR-C150 only
I: HL1 TRANSPARENCY	OHP mode control temperature (HL1)	70 to 200	180	180	180	180	180	180	180	180	180	AR-C150 only
J: HL2 TRANSPARENCY	OHP mode control temperature (HL2)	70 to 200	175	175	175	175	175	175	175	175	175	AR-C150 only

(AR-C250/C160/C270)

Display	Content	Set range	Set value									NOTE
			U.S.A	Canada	Inch	Japan	AB_B	Europe	U.K	Aus.	AB_A	
A: HL1 PLAIN PAPER	Normal mode control temperature (HL1)	70 to 200	170	170	170	170	170	170	170	170	170	
B: HL2 PLAIN PAPER	Normal mode control temperature (HL2)	70 to 200	125	125	125	140 (125)	140 (125)	125	125	125	125	( ) AR-C160/C270
C: HL1 READY	Ready state control temperature (H1)	70 to 200	177	177	177	177	177	177	177	177	177	
D: HL2 READY	Ready state control temperature (H2)	70 to 200	132	132	132	140 (132)	140 (132)	132	132	132	132	( ) AR-C160/C270
E: HL1 E_STAR	Energy save mode control temperature (HL1)	70 to 200	136 (146)	136 (146)	136 (146)	136 (146)	136 (146)	136 (146)	136 (146)	136 (146)	136 (146)	( ) AR-C160/C270
F: HL1 PRE-BK	Control temperature (HL1) when resetting to B/W from preheat	70 to 200	148 (158)	148 (158)	148 (158)	148 (158)	148 (158)	148 (158)	148 (158)	148 (158)	148 (158)	( ) AR-C160/C270
G: HL1 HEAVYPAPER1	Heavy paper 1 mode control temperature (HL1)	70 to 210	185	185	185	185	185	185	185	185	185	
H: HL2 HEAVYPAPER1	Heavy paper 1 mode control temperature (HL2)	70 to 200	155	155	155	155	155	155	155	155	155	
I: HL1 HEAVYPAPER2	Heavy paper 2 mode control temperature (HL1)	70 to 210	200	200	200	200	200	200	200	200	200	
J: HL2 HEAVYPAPER2	Heavy paper 2 mode control temperature (HL2)	70 to 200	155	155	155	155	155	155	155	155	155	
K: HL1 TRANSPARENCY	OHP mode control temperature (HL1)	70 to 200	180	180	180	180	180	180	180	180	180	
L: HL2 TRANSPARENCY	OHP mode control temperature (HL2)	70 to 200	175	175	175	175	175	175	175	175	175	



SIMULATION NO.43-01
FUSER TEMPERATURE SETUP
A: 165
[70～200]
A:165; HL1 PLAIN PAPER
B:115; HL2 PLAIN PAPER
C:170; HL1 READY
D:125; HL2 READY

Note	Never set to another value than the specified value (default). (Otherwise, a trouble may occur.)

43 - 7

Purpose	Adjustment
Function (Purpose)	Used to adjust the fusing oil supply amount. (Adjustment of oil motor ON time and oil motor ON interval)
Section	Fixing (Fusing)
Item	Operation
Operation/ Procedure	1. Select the adjustment item with [↑], [↓] keys. **A: ON-TIME**

Fusing oil pump ON time [ms]

B: CTRL-CYCLE

Fusing oil pump control cycle [ms]

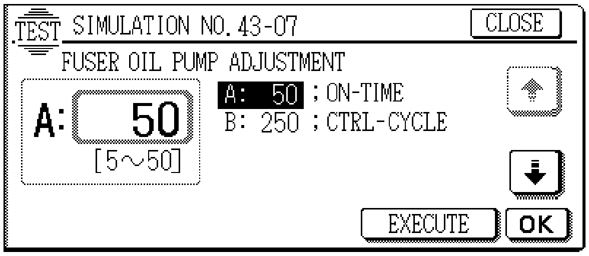
2. Enter the set value with the 10-key.
3. Press the [OK] key.
   When the [EXECUTE] key is pressed, it is highlighted and the pump is operated with the set content.
   When the [EXECUTE] key is pressed again, the display returns to the normal display and the pump is stopped.

	Range [ms]	Default value
ON-TIME	5 – 50	12
CTRL-CYCLE	17 – 250	130

(Example) When ON-TIME is 12ms and CTRL-CYCLE is 250ms, 12ms of ON and (250+50) –12ms of OFF are repeated.

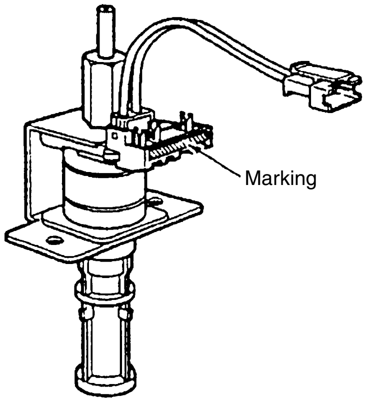
Default

A: ON-TIME	12 [ms]
B: CTRL-CYCLE	130 [ms]



SIMULATION NO.43-07
FUSER OIL PUMP ADJUSTMENT
A: 50
[5～50]
A: 50 ; ON-TIME
B: 250 ; CTRL-CYCLE

When installing (replacing) this pump, set the pump operation value of Sim 43-7 referring to the marking color shown in the illustration below.



Marking color	Setting of simulation 43-7	
	A	B
Blue	12	80
Red	12	180
None	12	130

44

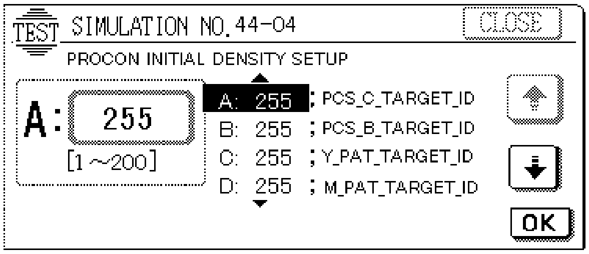
44 - 4

Purpose	Setting
Function (Purpose)	Used to set the target image (reference) density level in correction (process correction) operations in the image forming section.
Section	Image process (Photoconductor/Developing/Transfer/ Cleaning)
Item	Picture quality Density
Operation/ Procedure	1. Select the adjustment item with [↑], [↓] keys. 2. Enter the set value with 10-key. (255 levels)

3. Press the [OK] key. (The value entered in procedure 2 is set.)

Default value

Color sensor adjustment reference level	PCS_C_TARGET_ID	102
Black sensor adjustment reference level	PCS_B_TARGET_ID	133
Yellow reference density level	Y_PAT_TARGET_ID	90
Magenta reference density level	M_PAT_TARGET_ID	100
Cyan reference density level	C_PAT_TARGET_ID	83
Black reference density level	K_PAT_TARGET_ID	15 (AR-C100/C150)
Black reference density level	K_PAT_TARGET_ID	22 (AR-C250/C160/ C270)



SIMULATION NO.44-04
PROCON INITIAL DENSITY SETUP
A: 255
[1～200]
A: 255 ; PCS_C_TARGET_ID
B: 255 ; PCS_B_TARGET_ID
C: 255 ; Y_PAT_TARGET_ID
D: 255 ; M_PAT_TARGET_ID

44 - 9

Purpose	Operation data output/Check (Display/Print)
Function (Purpose)	Used to check the data on the image forming section correction (process correction) (corrected main charger grid voltage, the developing bias voltage, the laser power, etc, in each print mode). (This simulation allows to check if the correction operation is performed normally.)
Section	Image process (Photoconductor/Developing/Transfer/Cleaning)
Item	Data / Operation data (Machine condition)
Operation/ Procedure	1. By scrolling with [↑], [↓] keys, each data of the image forming section correction result.

The greater the difference between the initial value and the current value is, the greater the correction quantity is judged as.

This leads to a supposition that the conditions of consumable parts such as developer and photoconductor may have been degraded.

Page 1 –3 G, B, DV and initial set value in each mode stored in process control

Page 4 Rotating time and the mark number of each drum

Page 5 Rotating time of each developing unit

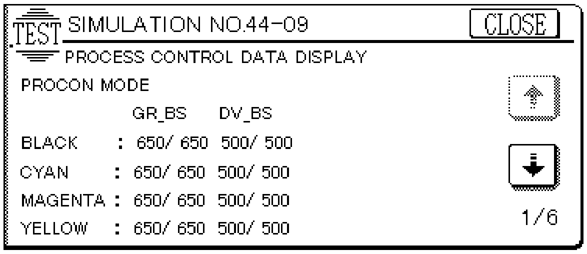
Page 6 Humidity environment area (For transfer correction/humidity correction)

[Content]

Process control mode output

Black	GB current value/GB initial value
Cyan	GB current value/GB initial value
Magenta	GB current value/GB initial value
Yellow	GB current value/GB initial value

Black	DV current value/DV initial value
Cyan	DV current value/DV initial value
Magenta	DV current value/DV initial value
Yellow	DV current value/DV initial value



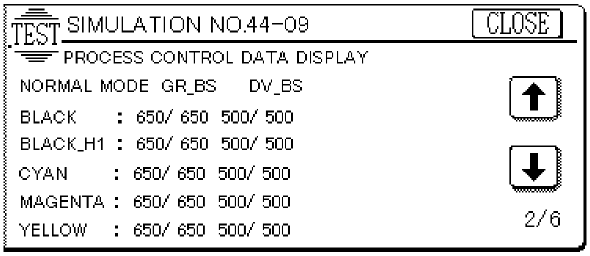
```
SIMULATION NO.44-09
PROCESS CONTROL DATA DISPLAY
PROCON MODE
             GR_BS     DV_BS
BLACK    :  650/ 650  500/ 500
CYAN     :  650/ 650  500/ 500
MAGENTA  :  650/ 650  500/ 500
YELLOW   :  650/ 650  500/ 500
```

[Content]

Normal mode output

Black	GB current value/GB initial value
Cyan	GB current value/GB initial value
Magenta	GB current value/GB initial value
Yellow	GB current value/GB initial value

Black	DV current value/DV initial value
Cyan	DV current value/DV initial value
Magenta	DV current value/DV initial value
Yellow	DV current value/DV initial value



```
SIMULATION NO.44-09
PROCESS CONTROL DATA DISPLAY
NORMAL MODE  GR_BS     DV_BS
BLACK    :  650/ 650  500/ 500
BLACK_H1 :  650/ 650  500/ 500
CYAN     :  650/ 650  500/ 500
MAGENTA  :  650/ 650  500/ 500
YELLOW   :  650/ 650  500/ 500
```

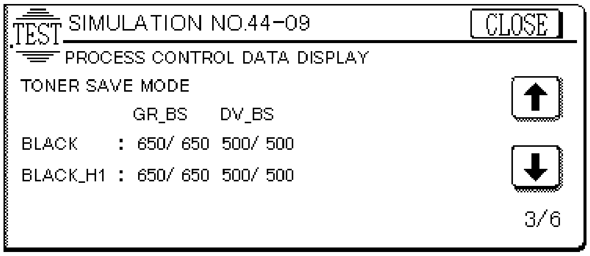
BLACK_H1: (AR-C160/C270)

[Content]

Toner save mode output

Black	GB current value/GB initial value

Black	DV current value/DV initial value



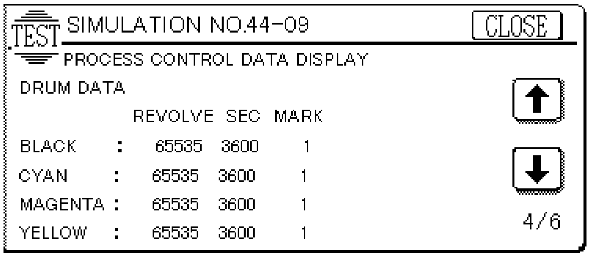
```
SIMULATION NO.44-09
PROCESS CONTROL DATA DISPLAY
TONER SAVE MODE
             GR_BS     DV_BS
BLACK    :  650/ 650  500/ 500
BLACK_H1 :  650/ 650  500/ 500
```

BLACK_H1: (AR-C160/C270)

[Content]

Drum data

Black	Drum rotation (hour)	Drum rotation (sec)
Cyan	Drum rotation (hour)	Drum rotation (sec)
Magenta	Drum rotation (hour)	Drum rotation (sec)
Yellow	Drum rotation (hour)	Drum rotation (sec)

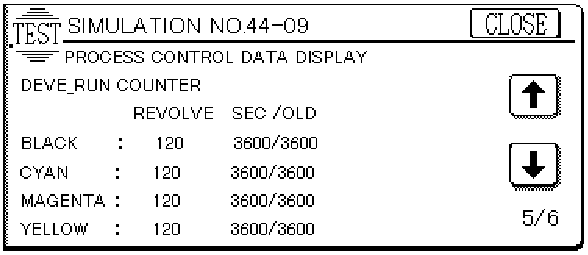


```
SIMULATION NO.44-09
PROCESS CONTROL DATA DISPLAY
DRUM DATA
             REVOLVE  SEC  MARK
BLACK    :    65535   3600    1
CYAN     :    65535   3600    1
MAGENTA  :    65535   3600    1
YELLOW   :    65535   3600    1
```

[Content]

Developer counter

Black	Developer operating rotation (hour)	Developer operating rotation sec/Previous count up time (sec)
Cyan	Developer operating rotation (hour)	Developer operating rotation sec/Previous count up time (sec)
Magenta	Developer operating rotation (hour)	Developer operating rotation sec/Previous count up time (sec)
Yellow	Developer operating rotation (hour)	Developer operating rotation sec/Previous count up time (sec)

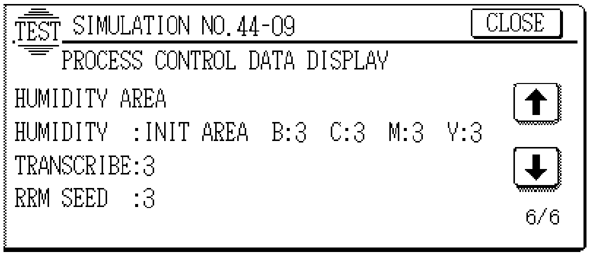


```
SIMULATION NO.44-09
PROCESS CONTROL DATA DISPLAY
DEVE_RUN COUNTER
             REVOLVE   SEC /OLD
BLACK    :    120      3600/3600
CYAN     :    120      3600/3600
MAGENTA  :    120      3600/3600
YELLOW   :    120      3600/3600
```

[Content]

Humidity environment area

Humidity	correction present area
Humidity	Initial area (Toner density ADJ)
Transfer	correction present area
RRM speed correction	correction present area


TEST SIMULATION NO.44-09

PROCESS CONTROL DATA DISPLAY

HUMIDITY AREA

HUMIDITY :INIT AREA B:3 C:3 M:3 Y:3

TRANSCRIBE:3

RRM SEED :3

6/6

46

46 - 10

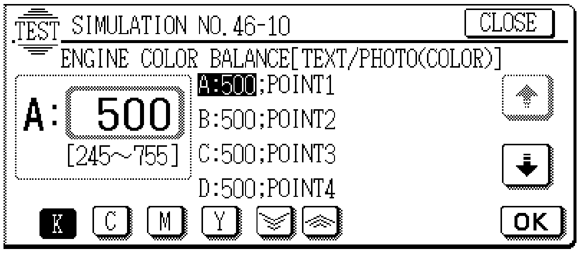
Purpose	Adjustment
Function (Purpose)	Used to set the copy color balance (gamma for each color). (Color/Text Photo mode). (AR-C100/C150) Used to adjust the copy color balance (gamma for each color). (Color/Copy document mode) (AR-C250/C160/C270)
Section	ICU
Item	Picture quality Color balance
Operation/ Procedure	1. Select the color to be adjusted with the color keys (K, C, M, Y).

2. Select the adjustment point with [↑], [↓] keys.
3. Enter the adjustment value of the selected point with the 10-key.
4. Press the [OK] key.
   (The entered value is set.)

(AR-C100/C150)

<SIM46-10 Data detail>

Disp PosNo.	Disp Chara	Default Value	Min Value	Max Value	Contents
A	POINT1	500	245	755	Half tone reference correction table S46 correction quantity: black density 0 for text/Printed photo
↓	↓	↓	↓	↓	↓
O	POINT15	500	245	755	Half tone reference correction table S46 correction quantity: black density 14 for text/Printed photo
A	POINT1	500	245	755	Half tone reference correction table S46 correction quantity: cyan density 0 for text/Printed photo
↓	↓	↓	↓	↓	↓
O	POINT15	500	245	755	Half tone reference correction table S46 correction quantity: cyan density 14 for text/Printed photo
A	POINT1	500	245	755	Half tone reference correction table S46 correction quantity: magenta density 0 for text/Printed photo
↓	↓	↓	↓	↓	↓
O	POINT15	500	245	755	Half tone reference correction table S46 correction quantity: magenta density 14 for text/Printed photo
A	POINT1	500	245	755	Half tone reference correction table S46 correction quantity: yellow density 0 for text/Printed photo
↓	↓	↓	↓	↓	↓
O	POINT15	500	245	755	Half tone reference correction table S46 correction quantity: yellow density 14 for text/Printed photo


TEST SIMULATION NO.46-10

ENGINE COLOR BALANCE[TEXT/PHOTO(COLOR)]

A: 500

[245~755]

A:500;POINT1

B:500;POINT2

C:500;POINT3

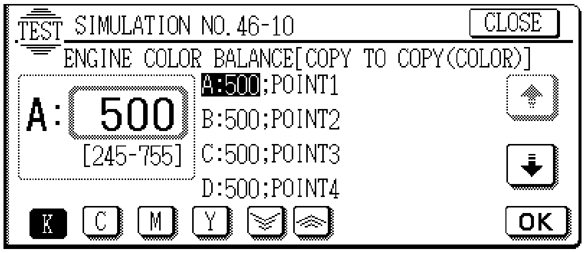
D:500;POINT4

(AR-C250)

<SIM46-10 Data detail>

Disp PosNo.	Disp Chara	Default Value	Min Value	Max Value	Contents
A	POINT1	500	245	755	Half tone reference correction table S46 correction quantity: Copy document mode black density 0
↓	↓	↓	↓	↓	↓
O	POINT15	500	245	755	Half tone reference correction table S46 correction quantity: Copy document mode black density 14
A	POINT1	500	245	755	Half tone reference correction table S46 correction quantity: Copy document mode cyan density 0
↓	↓	↓	↓	↓	↓
O	POINT15	500	245	755	Half tone reference correction table S46 correction quantity: Copy document mode cyan density 14

Disp PosNo.	Disp Chara	Default Value	Min Value	Max Value	Contents
A	POINT1	500	245	755	Half tone reference correction table S46 correction quantity: Copy document mode magenta density 0
↓	↓	↓	↓	↓	↓
O	POINT15	500	245	755	Half tone reference correction table S46 correction quantity: Copy document mode magenta density 14
A	POINT1	500	245	755	Half tone reference correction table S46 correction quantity: Copy document mode yellow density 0
↓	↓	↓	↓	↓	↓
O	POINT15	500	245	755	Half tone reference correction table S46 correction quantity: Copy document mode yellow density 14



TEST SIMULATION NO.46-10

ENGINE COLOR BALANCE[COPY TO COPY(COLOR)]

A: 500

[245-755]

A:500;POINT1

B:500;POINT2

C:500;POINT3

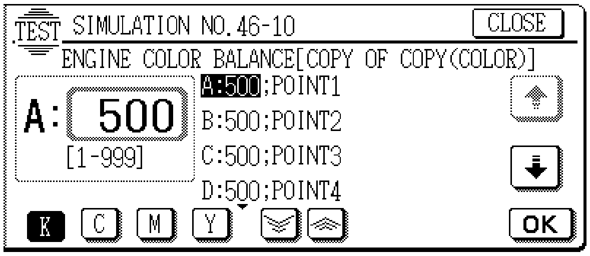
D:500;POINT4

(AR-C160/C270)

<SIM46-10 Data detail>

Disp PosNo.	Disp Chara	Default Value	Min Value	Max Value	Contents
A	POINT1	500	1	999	Half tone reference correction table S46 correction quantity: Copy document mode black density 0
↓	↓	↓	↓	↓	↓
O	POINT15	500	1	999	Half tone reference correction table S46 correction quantity: Copy document mode black density 14
A	POINT1	500	1	999	Half tone reference correction table S46 correction quantity: Copy document mode cyan density 0
↓	↓	↓	↓	↓	↓
O	POINT15	500	1	999	Half tone reference correction table S46 correction quantity: Copy document mode cyan density 14

Disp PosNo.	Disp Chara	Default Value	Min Value	Max Value	Contents
A	POINT1	500	1	999	Half tone reference correction table S46 correction quantity: Copy document mode magenta density 0
↓	↓	↓	↓	↓	↓
O	POINT15	500	1	999	Half tone reference correction table S46 correction quantity: Copy document mode magenta density 14
A	POINT1	500	1	999	Half tone reference correction table S46 correction quantity: Copy document mode yellow density 0
↓	↓	↓	↓	↓	↓
O	POINT15	500	1	999	Half tone reference correction table S46 correction quantity: Copy document mode yellow density 14



TEST SIMULATION NO.46-10

ENGINE COLOR BALANCE[COPY OF COPY(COLOR)]

A: 500

[1-999]

A:500;POINT1

B:500;POINT2

C:500;POINT3

D:500;POINT4

46 - 11

Purpose	Adjustment
Function (Purpose)	Used to set the copy color balance (gamma for each color). (Color/Text mode) (AR-C150/C250/C160/C270)
Section	ICU
Item	Picture quality Color balance
Operation/ Procedure	1. Select the color to be adjusted with the color keys (K, C, M, Y). 2. Select the adjustment point with [↑], [↓] keys.

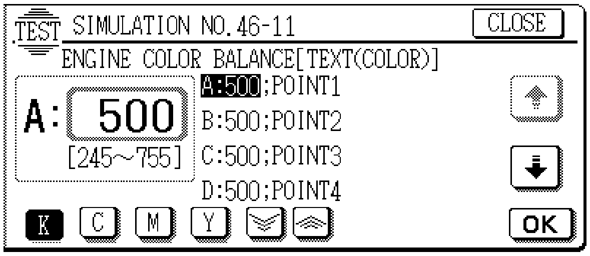
3. Enter the adjustment value of the selected point with the 10-key.
4. Press the [OK] key.
   (The entered value 2 is set.)

(AR-C150/C250)

<SIM46-11 Data detail>

Disp PosNo.	Disp Chara	Default Value	Min Value	Max Value	Contents
A	POINT1	500	245	755	Half tone reference correction table S46 correction quantity: black density 0 for text
↓	↓	↓	↓	↓	↓
O	POINT15	500	245	755	Half tone reference correction table S46 correction quantity: black density 14 for text

Disp PosNo.	Disp Chara	Default Value	Min Value	Max Value	Contents
A	POINT1	500	245	755	Half tone reference correction table S46 correction quantity: cyan density 0 for text
↓	↓	↓	↓	↓	↓
O	POINT15	500	245	755	Half tone reference correction table S46 correction quantity: cyan density 14 for text
A	POINT1	500	245	755	Half tone reference correction table S46 correction quantity: magenta density 0 for text
↓	↓	↓	↓	↓	↓
O	POINT15	500	245	755	Half tone reference correction table S46 correction quantity: magenta density 14 for text
A	POINT1	500	245	755	Half tone reference correction table S46 correction quantity: yellow density 0 for text
↓	↓	↓	↓	↓	↓
O	POINT15	500	245	755	Half tone reference correction table S46 correction quantity: yellow density 14 for text

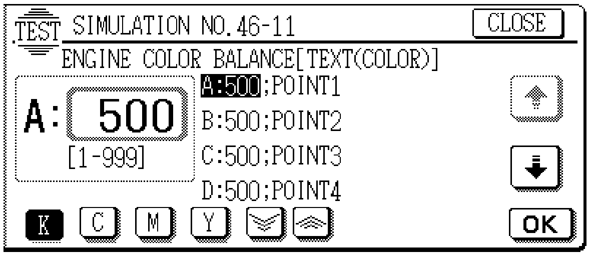


SIMULATION NO.46-11
ENGINE COLOR BALANCE[TEXT(COLOR)]
A: 500
[245~755]
A:500;POINT1
B:500;POINT2
C:500;POINT3
D:500;POINT4

(AR-C160/C270)

<SIM46-11 Data detail>

Disp PosNo.	Disp Chara	Default Value	Min Value	Max Value	Contents
A	POINT1	500	1	999	Half tone reference correction table S46 correction quantity: black density 0 for text
↓	↓	↓	↓	↓	↓
O	POINT15	500	1	999	Half tone reference correction table S46 correction quantity: black density 14 for text
A	POINT1	500	1	999	Half tone reference correction table S46 correction quantity: cyan density 0 for text
↓	↓	↓	↓	↓	↓
O	POINT15	500	1	999	Half tone reference correction table S46 correction quantity: cyan density 14 for text
A	POINT1	500	1	999	Half tone reference correction table S46 correction quantity: magenta density 0 for text
↓	↓	↓	↓	↓	↓
O	POINT15	500	1	999	Half tone reference correction table S46 correction quantity: magenta density 14 for text
A	POINT1	500	1	999	Half tone reference correction table S46 correction quantity: yellow density 0 for text
↓	↓	↓	↓	↓	↓
O	POINT15	500	1	999	Half tone reference correction table S46 correction quantity: yellow density 14 for text



SIMULATION NO.46-11
ENGINE COLOR BALANCE[TEXT(COLOR)]
A: 500
[1-999]
A:500;POINT1
B:500;POINT2
C:500;POINT3
D:500;POINT4

46 - 12

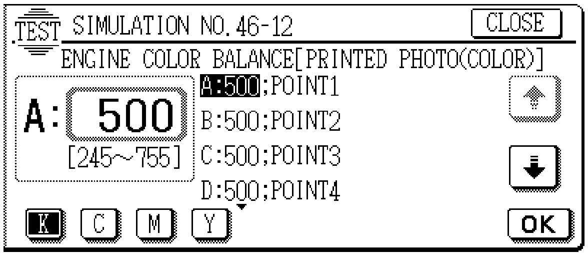
Purpose	Adjustment
Function (Purpose)	Used to set the copy color balance (gamma for each color). (Color/Printed Photo mode) (AR-C150) Used to adjust the copy color balance (gamma for each color). (Color/Text Printed Photo/Printed Photo mode) (AR-C250/C160/C270)
Section	ICU
Item	Picture quality Color balance
Operation/ Procedure	1. Select the color to be adjusted with the color keys (K, C, M, Y).

2. Select the adjustment point with [↑], [↓] keys.
3. Enter the adjustment value of the selected point with the 10-key.
4. Press the [OK] key.
   (The entered value 2 is set.)

(AR-C150)

<SIM46-12 Data detail>

Disp PosNo.	Disp Chara	Default Value	Min Value	Max Value	Contents
A	POINT1	500	245	755	Half tone reference correction table S46 correction quantity: black density 0 for printed photo
↓	↓	↓	↓	↓	↓
O	POINT15	500	245	755	Half tone reference correction table S46 correction quantity: black density 14 for printed photo
A	POINT1	500	245	755	Half tone reference correction table S46 correction quantity: cyan density 0 for printed photo
↓	↓	↓	↓	↓	↓
O	POINT15	500	245	755	Half tone reference correction table S46 correction quantity: cyan density 14 for printed photo
A	POINT1	500	245	755	Half tone reference correction table S46 correction quantity: magenta density 0 for printed photo
↓	↓	↓	↓	↓	↓
O	POINT15	500	245	755	Half tone reference correction table S46 correction quantity: magenta density 14 for printed photo
A	POINT1	500	245	755	Half tone reference correction table S46 correction quantity: yellow density 0 for printed photo
↓	↓	↓	↓	↓	↓
O	POINT15	500	245	755	Half tone reference correction table S46 correction quantity: yellow density 14 for printed photo



SIMULATION NO.46-12

ENGINE COLOR BALANCE[PRINTED PHOTO(COLOR)]

A: 500

[245~755]

A:500;POINT1

B:500;POINT2

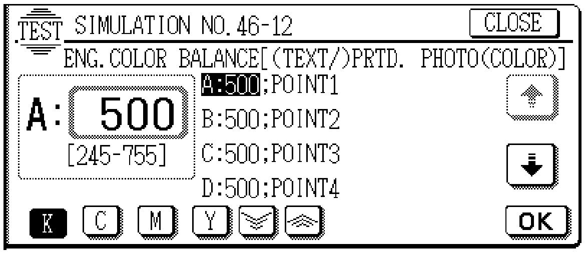
C:500;POINT3

D:500;POINT4

(AR-C250)

<SIM46-12 Data detail>

Disp PosNo.	Disp Chara	Default Value	Min Value	Max Value	Contents
A	POINT1	500	245	755	Half tone reference correction table S46 correction quantity: Text Printed Photo/Printed Photo black density 0
↓	↓	↓	↓	↓	↓
O	POINT15	500	245	755	Half tone reference correction table S46 correction quantity: Text Printed Photo/Printed Photo black density 14
A	POINT1	500	245	755	Half tone reference correction table S46 correction quantity: Text Printed Photo/Printed Photo cyan density 0
↓	↓	↓	↓	↓	↓
O	POINT15	500	245	755	Half tone reference correction table S46 correction quantity: Text Printed Photo/Printed Photo cyan density 14
A	POINT1	500	245	755	Half tone reference correction table S46 correction quantity: Text Printed Photo/Printed Photo magenta density 0
↓	↓	↓	↓	↓	↓
O	POINT15	500	245	755	Half tone reference correction table S46 correction quantity: Text Printed Photo/Printed Photo magenta density 14
A	POINT1	500	245	755	Half tone reference correction table S46 correction quantity: Text Printed Photo/Printed Photo yellow density 0
↓	↓	↓	↓	↓	↓
O	POINT15	500	245	755	Half tone reference correction table S46 correction quantity: Text Printed Photo/Printed Photo yellow density 14



SIMULATION NO.46-12

ENG.COLOR BALANCE[(TEXT/)PRTD. PHOTO(COLOR)]

A: 500

[245-755]

A:500;POINT1

B:500;POINT2

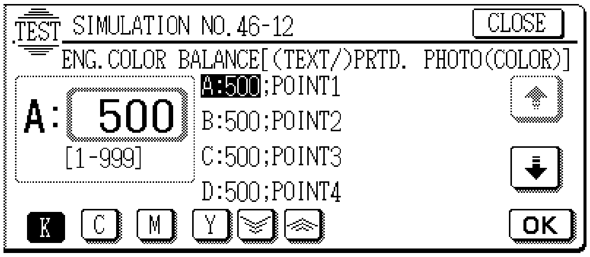
C:500;POINT3

D:500;POINT4

(AR-C160/C270)

<SIM46-12 Data detail>

Disp PosNo.	Disp Chara	Default Value	Min Value	Max Value	Contents
A	POINT1	500	1	999	Half tone reference correction table S46 correction quantity: Text Printed Photo/Printed Photo black density 0
↓	↓	↓	↓	↓	↓
O	POINT15	500	1	999	Half tone reference correction table S46 correction quantity: Text Printed Photo/Printed Photo black density 14
A	POINT1	500	1	999	Half tone reference correction table S46 correction quantity: Text Printed Photo/Printed Photo cyan density 0
↓	↓	↓	↓	↓	↓
O	POINT15	500	1	999	Half tone reference correction table S46 correction quantity: Text Printed Photo/Printed Photo cyan density 14
A	POINT1	500	1	999	Half tone reference correction table S46 correction quantity: Text Printed Photo/Printed Photo magenta density 0
↓	↓	↓	↓	↓	↓
O	POINT15	500	1	999	Half tone reference correction table S46 correction quantity: Text Printed Photo/Printed Photo magenta density 14
A	POINT1	500	1	999	Half tone reference correction table S46 correction quantity: Text Printed Photo/Printed Photo yellow density 0
↓	↓	↓	↓	↓	↓
O	POINT15	500	1	999	Half tone reference correction table S46 correction quantity: Text Printed Photo/Printed Photo yellow density 14



TEST SIMULATION NO.46-12

ENG.COLOR BALANCE[(TEXT/)PRTD. PHOTO(COLOR)]

A: 500

[1-999]

A:500;POINT1

B:500;POINT2

C:500;POINT3

D:500;POINT4

46 - 13

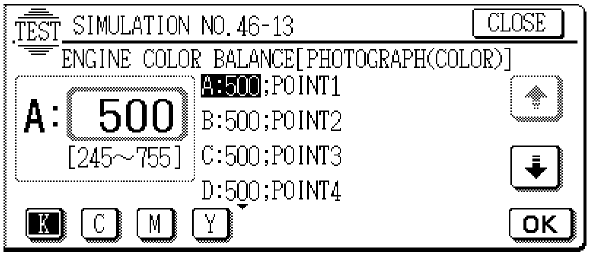
Purpose	Adjustment
Function (Purpose)	Used to set the copy color balance (gamma for each color). (Color/Photo mode) (AR-C100/C150) Used to adjust the copy color balance (gamma for each color). (Color/Text Photo/Photograph mode) (AR-C250/C160/C270)
Section	ICU
Item	Picture quality Color balance
Operation/ Procedure	1. Select the color to be adjusted with the color keys (K, C, M, Y).

2. Select the adjustment point with [↑], [↓] keys.
3. Enter the adjustment value of the selected point with the 10-key.
4. Press the [OK] key.
   (The entered value 2 is set.)

(AR-C150)

<SIM46-13 Data detail>

Disp PosNo.	Disp Chara	Default Value	Min Value	Max Value	Contents
A	POINT1	500	245	755	Half tone reference correction table S46 correction quantity: black density 0 for photograph
↓	↓	↓	↓	↓	↓
O	POINT15	500	245	755	Half tone reference correction table S46 correction quantity: black density 14 for photograph
A	POINT1	500	245	755	Half tone reference correction table S46 correction quantity: cyan density 0 for photograph
↓	↓	↓	↓	↓	↓
O	POINT15	500	245	755	Half tone reference correction table S46 correction quantity: cyan density 14 for photograph
A	POINT1	500	245	755	Half tone reference correction table S46 correction quantity: magenta density 0 for photograph
↓	↓	↓	↓	↓	↓
O	POINT15	500	245	755	Half tone reference correction table S46 correction quantity: magenta density 14 for photograph
A	POINT1	500	245	755	Half tone reference correction table S46 correction quantity: yellow density 0 for photograph
↓	↓	↓	↓	↓	↓
O	POINT15	500	245	755	Half tone reference correction table S46 correction quantity: yellow density 14 for photograph


TEST SIMULATION NO.46-13

ENGINE COLOR BALANCE[PHOTOGRAPH(COLOR)]

A: 500

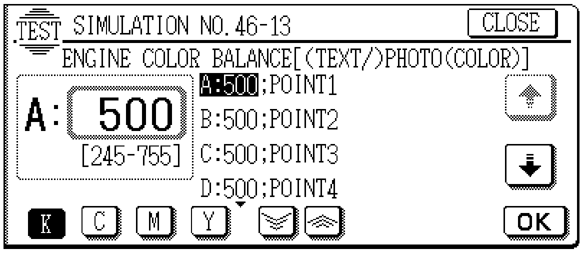
[245~755]

A:500;POINT1
B:500;POINT2
C:500;POINT3
D:500;POINT4

(AR-C250)

<SIM46-13 Data detail>

Disp PosNo.	Disp Chara	Default Value	Min Value	Max Value	Contents
A	POINT1	500	245	755	Half tone reference correction table S46 correction quantity: Text Photo/Photo black density 0
↓	↓	↓	↓	↓	↓
O	POINT15	500	245	755	Half tone reference correction table S46 correction quantity: Text Photo/Photo black density 14
A	POINT1	500	245	755	Half tone reference correction table S46 correction quantity: Text Photo/Photo cyan density 0
↓	↓	↓	↓	↓	↓
O	POINT15	500	245	755	Half tone reference correction table S46 correction quantity: Text Photo/Photo cyan density 14
A	POINT1	500	245	755	Half tone reference correction table S46 correction quantity: Text Photo/Photo magenta density 0
↓	↓	↓	↓	↓	↓
O	POINT15	500	245	755	Half tone reference correction table S46 correction quantity: Text Photo/Photo magenta density 14
A	POINT1	500	245	755	Half tone reference correction table S46 correction quantity: Text Photo/Photo yellow density 0
↓	↓	↓	↓	↓	↓
O	POINT15	500	245	755	Half tone reference correction table S46 correction quantity: Text Photo/Photo yellow density 14


TEST SIMULATION NO.46-13

ENGINE COLOR BALANCE[(TEXT/)PHOTO(COLOR)]

A: 500

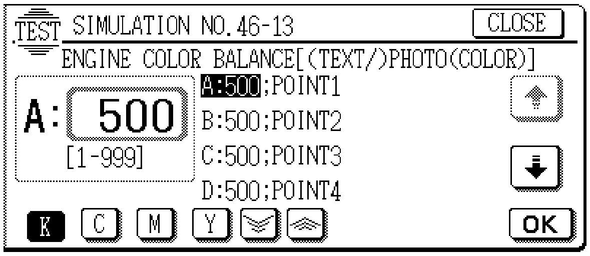
[245-755]

A:500;POINT1
B:500;POINT2
C:500;POINT3
D:500;POINT4

(AR-C160/C270)

<SIM46-13 Data detail>

Disp PosNo.	Disp Chara	Default Value	Min Value	Max Value	Contents
A	POINT1	500	1	999	Half tone reference correction table S46 correction quantity: Text Photo/Photo black density 0
↓	↓	↓	↓	↓	↓
O	POINT15	500	1	999	Half tone reference correction table S46 correction quantity: Text Photo/Photo black density 14
A	POINT1	500	1	999	Half tone reference correction table S46 correction quantity: Text Photo/Photo cyan density 0
↓	↓	↓	↓	↓	↓
O	POINT15	500	1	999	Half tone reference correction table S46 correction quantity: Text Photo/Photo cyan density 14
A	POINT1	500	1	999	Half tone reference correction table S46 correction quantity: Text Photo/Photo magenta density 0
↓	↓	↓	↓	↓	↓
O	POINT15	500	1	999	Half tone reference correction table S46 correction quantity: Text Photo/Photo magenta density 14
A	POINT1	500	1	999	Half tone reference correction table S46 correction quantity: Text Photo/Photo yellow density 0
↓	↓	↓	↓	↓	↓
O	POINT15	500	1	999	Half tone reference correction table S46 correction quantity: Text Photo/Photo yellow density 14


TEST SIMULATION NO.46-13

ENGINE COLOR BALANCE[(TEXT/)PHOTO(COLOR)]

A: 500

[1-999]

A:500;POINT1
B:500;POINT2
C:500;POINT3
D:500;POINT4

46 - 14

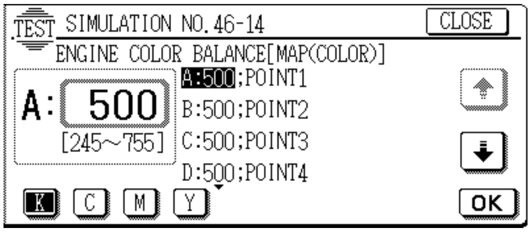
Purpose	Adjustment
Function (Purpose)	Used to set the copy color balance (gamma for each color). (Color/Map mode) (AR-C150/C250/C160/C270)
Section	ICU
Item	Picture quality Color balance
Operation/ Procedure	1. Select the color to be adjusted with the color keys (K, C, M, Y).

2. Select the adjustment point with [↑], [↓] keys.
3. Enter the adjustment value of the selected point with the 10-key.
4. Press the [OK] key.
   (The entered value 2 is set.)

(AR-C150/C250)

<SIM46-14 Data detail>

Disp PosNo.	Disp Chara	Default Value	Min Value	Max Value	Contents
A	POINT1	500	245	755	Half tone reference correction table S46 correction quantity: black density 0 for map
↓	↓	↓	↓	↓	↓
O	POINT15	500	245	755	Half tone reference correction table S46 correction quantity: black density 14 for map
A	POINT1	500	245	755	Half tone reference correction table S46 correction quantity: cyan density 0 for map
↓	↓	↓	↓	↓	↓
O	POINT15	500	245	755	Half tone reference correction table S46 correction quantity: cyan density 14 for map
A	POINT1	500	245	755	Half tone reference correction table S46 correction quantity: magenta density 0 for map
↓	↓	↓	↓	↓	↓
O	POINT15	500	245	755	Half tone reference correction table S46 correction quantity: magenta density 14 for map
A	POINT1	500	245	755	Half tone reference correction table S46 correction quantity: yellow density 0 for map
↓	↓	↓	↓	↓	↓
O	POINT15	500	245	755	Half tone reference correction table S46 correction quantity: yellow density 14 for map

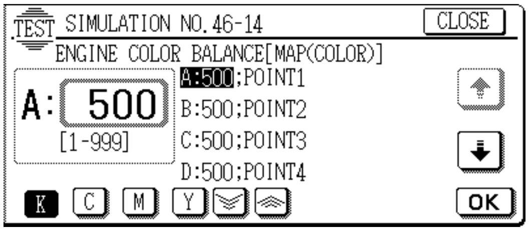


SIMULATION NO.46-14
ENGINE COLOR BALANCE[MAP(COLOR)]
A: 500
[245~755]
A:500;POINT1
B:500;POINT2
C:500;POINT3
D:500;POINT4

(AR-C160/C270)

<SIM46-14 Data detail>

Disp PosNo.	Disp Chara	Default Value	Min Value	Max Value	Contents
A	POINT1	500	1	999	Half tone reference correction table S46 correction quantity: black density 0 for map
↓	↓	↓	↓	↓	↓
O	POINT15	500	1	999	Half tone reference correction table S46 correction quantity: black density 14 for map
A	POINT1	500	1	999	Half tone reference correction table S46 correction quantity: cyan density 0 for map
↓	↓	↓	↓	↓	↓
O	POINT15	500	1	999	Half tone reference correction table S46 correction quantity: cyan density 14 for map
A	POINT1	500	1	999	Half tone reference correction table S46 correction quantity: magenta density 0 for map
↓	↓	↓	↓	↓	↓
O	POINT15	500	1	999	Half tone reference correction table S46 correction quantity: magenta density 14 for map
A	POINT1	500	1	999	Half tone reference correction table S46 correction quantity: yellow density 0 for map
↓	↓	↓	↓	↓	↓
O	POINT15	500	1	999	Half tone reference correction table S46 correction quantity: yellow density 14 for map



SIMULATION NO.46-14
ENGINE COLOR BALANCE[MAP(COLOR)]
A: 500
[1-999]
A:500;POINT1
B:500;POINT2
C:500;POINT3
D:500;POINT4

46 - 15

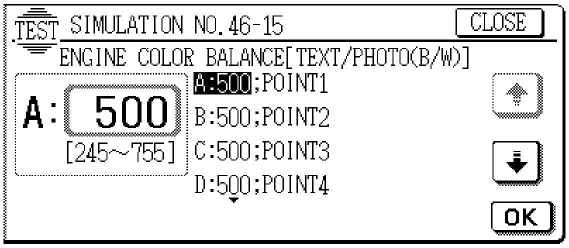
Purpose	Adjustment
Function (Purpose)	Used to adjust the copy density (gamma). (Monochrome/Text Photo mode) (AR-C100/ C150) Used to adjust the copy density (gamma). (Monochrome/Copy document mode) (AR-C250/C160/ C270)
Section	ICU
Item	Picture quality Density
Operation/ Procedure	1. Select the adjustment point with [↑], [↓] keys. 2. Enter the adjustment value of the selected point with the 10-key.

3. Press the [OK] key.
   (The entered value 2 is set.)

(AR-C100/C150)

<SIM46-15 Data detail>

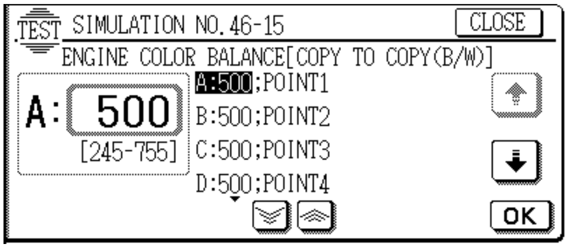
Disp PosNo.	Disp Chara	Default Value	Min Value	Max Value	Contents
A	POINT1	500	245	755	Half tone reference correction table S46 correction quantity: black B/W density 0 for text/printed photo
↓	↓	↓	↓	↓	↓
O	POINT15	500	245	755	Half tone reference correction table S46 correction quantity: black B/W density 14 for text/printed photo


SIMULATION NO.46-15
ENGINE COLOR BALANCE[TEXT/PHOTO(B/W)]
A: 500
[245～755]
A:500;POINT1
B:500;POINT2
C:500;POINT3
D:500;POINT4

(AR-C250)

<SIM46-15 Data detail>

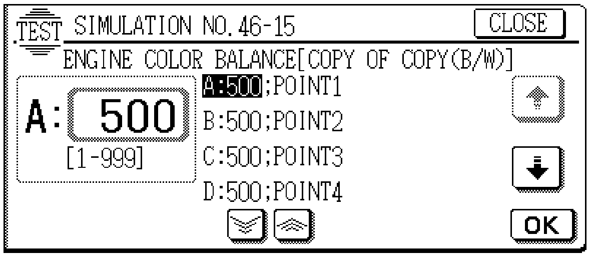
Disp PosNo.	Disp Chara	Default Value	Min Value	Max Value	Contents
A	POINT1	500	245	755	Half tone reference correction table S46 correction quantity: Copy document mode black B/W density 0
↓	↓	↓	↓	↓	↓
O	POINT15	500	245	755	Half tone reference correction table S46 correction quantity: Copy document mode black B/W density 14


SIMULATION NO.46-15
ENGINE COLOR BALANCE[COPY TO COPY(B/W)]
A: 500
[245-755]
A:500;POINT1
B:500;POINT2
C:500;POINT3
D:500;POINT4

(AR-C160/C270)

<SIM46-15 Data detail>

Disp PosNo.	Disp Chara	Default Value	Min Value	Max Value	Contents
A	POINT1	500	1	999	Half tone reference correction table S46 correction quantity: Copy document mode black B/W density 0
↓	↓	↓	↓	↓	↓
O	POINT15	500	1	999	Half tone reference correction table S46 correction quantity: Copy document mode black B/W density 14


SIMULATION NO.46-15
ENGINE COLOR BALANCE[COPY OF COPY(B/W)]
A: 500
[1-999]
A:500;POINT1
B:500;POINT2
C:500;POINT3
D:500;POINT4

46 - 16

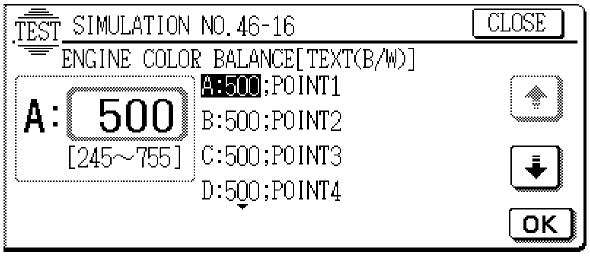
Purpose	Adjustment
Function (Purpose)	Used to adjust the copy density (gamma). (Monochrome/Test mode) (AR-C150/C250/C160/C270)
Section	ICU
Item	Picture quality Density
Operation/ Procedure	1. Select the adjustment point with [↑], [↓] keys. 2. Enter the adjustment value of the selected point with the 10-key.

3. Press the [OK] key.
   (The entered value is set.)

(AR-C150/C250)

<SIM46-16 Data detail>

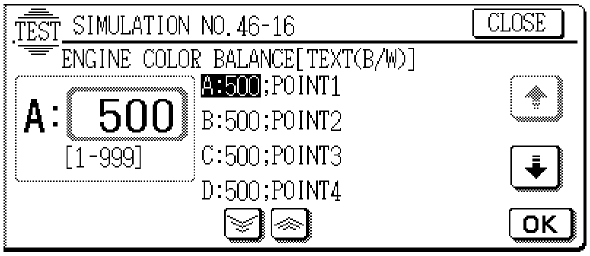
Disp Pos	Disp Chara	Default Value	Min Value	Max Value	Contents
A	POINT1	500	245	755	Half tone reference correction table S46 correction quantity: black B/W density 0 for text
↓	↓	↓	↓	↓	↓
O	POINT15	500	245	755	Half tone reference correction table S46 correction quantity: black B/W density 14 for text


SIMULATION NO.46-16
ENGINE COLOR BALANCE[TEXT(B/W)]
A: 500
[245～755]
A:500;POINT1
B:500;POINT2
C:500;POINT3
D:500;POINT4

(AR-C160/C270)

<SIM46-16 Data detail>

Disp Pos	Disp Chara	Default Value	Min Value	Max Value	Contents
A	POINT1	500	1	999	Half tone reference correction table S46 correction quantity: black B/W density 0 for text
↓	↓	↓	↓	↓	↓
O	POINT15	500	1	999	Half tone reference correction table S46 correction quantity: black B/W density 14 for text



SIMULATION NO.46-16
ENGINE COLOR BALANCE[TEXT(B/W)]
A: 500
[1-999]
A:500;POINT1
B:500;POINT2
C:500;POINT3
D:500;POINT4

46 - 17

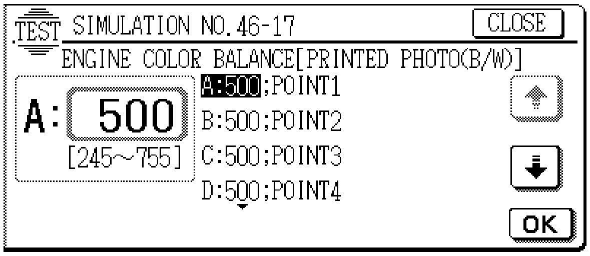
Purpose	Adjustment
Function (Purpose)	Used to adjust the copy density (gamma). (Monochrome/Printed Photo mode) (AR-C150) Used to adjust the copy density (gamma). (Monochrome/Text Printed Photo/Printed Photo mode) (AR-C250/C160/C270)
Section	ICU
Item	Picture quality Density
Operation/ Procedure	1. Select the adjustment point with [↑], [↓] keys. 2. Enter the adjustment value of the selected point with the 10-key.

3. Press the [OK] key.
   (The entered value is set.)

(AR-C150)

<SIM46-17 Data detail>

Disp PosNo.	Disp Chara	Default Value	Min Value	Max Value	Contents
A	POINT1	500	245	755	Half tone reference correction table S46 correction quantity: black B/W density 0 for printed photo
↓	↓	↓	↓	↓	↓
O	POINT15	500	245	755	Half tone reference correction table S46 correction quantity: black B/W density 14 for printed photo

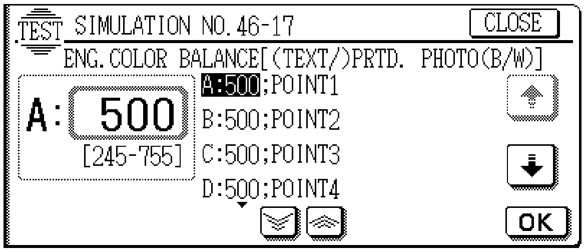


SIMULATION NO.46-17
ENGINE COLOR BALANCE[PRINTED PHOTO(B/W)]
A: 500
[245~755]
A:500;POINT1
B:500;POINT2
C:500;POINT3
D:500;POINT4

(AR-C250)

<SIM46-17 Data detail>

Disp PosNo.	Disp Chara	Default Value	Min Value	Max Value	Contents
A	POINT1	500	245	755	Half tone reference correction table S46 correction quantity: Text Printed photo/Printed Photo black B/W density 0
↓	↓	↓	↓	↓	↓
O	POINT15	500	245	755	Half tone reference correction table S46 correction quantity: Text Printed photo/Printed Photo black B/W density 14

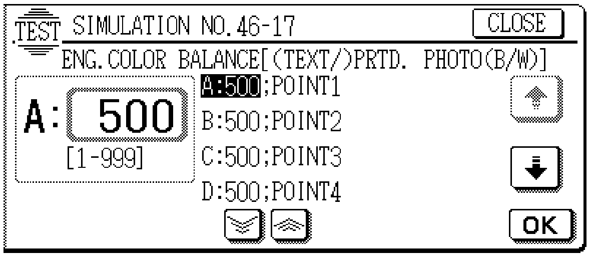


SIMULATION NO.46-17
ENG.COLOR BALANCE[(TEXT/)PRTD. PHOTO(B/W)]
A: 500
[245-755]
A:500;POINT1
B:500;POINT2
C:500;POINT3
D:500;POINT4

(AR-C160/C270)

<SIM46-17 Data detail>

Disp PosNo.	Disp Chara	Default Value	Min Value	Max Value	Contents
A	POINT1	500	1	999	Half tone reference correction table S46 correction quantity: Text Printed photo/Printed Photo black B/W density 0
↓	↓	↓	↓	↓	↓
O	POINT15	500	1	999	Half tone reference correction table S46 correction quantity: Text Printed photo/Printed Photo black B/W density 14



SIMULATION NO.46-17
ENG.COLOR BALANCE[(TEXT/)PRTD. PHOTO(B/W)]
A: 500
[1-999]
A:500;POINT1
B:500;POINT2
C:500;POINT3
D:500;POINT4

46 - 18

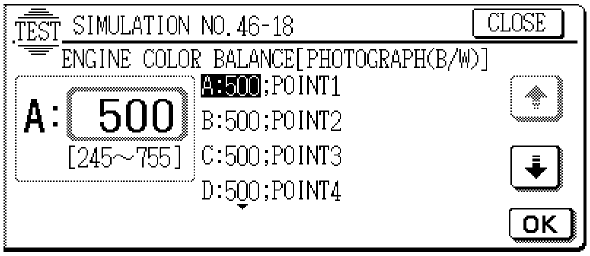
Purpose	Adjustment
Function (Purpose)	Used to adjust the copy density (gamma). (Monochrome/Photo mode) (AR-C100/C150) Used to adjust the copy density (gamma). (Monochrome/Text Photo/Photo mode) (AR-C250/C160/C270)
Section	ICU
Item	Picture quality Density
Operation/ Procedure	1. Select the adjustment point with [↑], [↓] keys. 2. Enter the adjustment value of the selected point with the 10-key.

3. Press the [OK] key.
   (The entered value is set.)

(AR-C100/C150)

<SIM46-18 Data detail>

Disp PosNo.	Disp Chara	Default Value	Min Value	Max Value	Contents
A	POINT1	500	245	755	Half tone reference correction table S46 correction quantity: black B/W density 0 for photograph
↓	↓	↓	↓	↓	↓
O	POINT15	500	245	755	Half tone reference correction table S46 correction quantity: black B/W density 14 for photograph

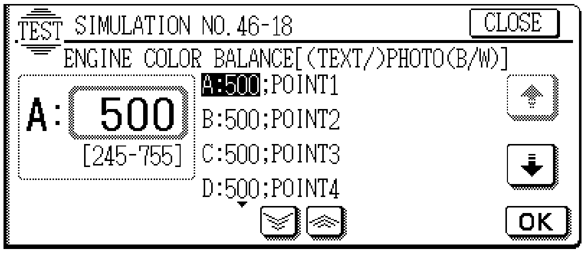


SIMULATION NO.46-18
ENGINE COLOR BALANCE[PHOTOGRAPH(B/W)]
A: 500
[245~755]
A:500;POINT1
B:500;POINT2
C:500;POINT3
D:500;POINT4

(AR-C250)

<SIM46-18 Data detail>

Disp PosNo.	Disp Chara	Default Value	Min Value	Max Value	Contents
A	POINT1	500	245	755	Half tone reference correction table S46 correction quantity: Text Photo/Photo black B/W density 0
↓	↓	↓	↓	↓	↓
O	POINT15	500	245	755	Half tone reference correction table S46 correction quantity: Text Photo/Photo black B/W density 14

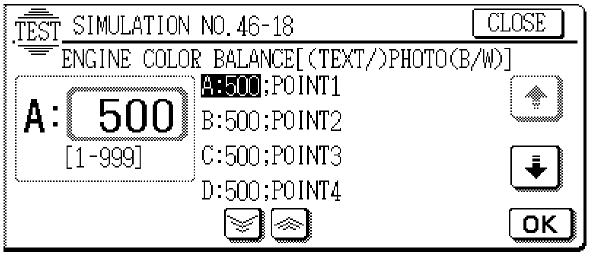


SIMULATION NO.46-18
ENGINE COLOR BALANCE[(TEXT/)PHOTO(B/W)]
A: 500
[245-755]
A:500;POINT1
B:500;POINT2
C:500;POINT3
D:500;POINT4

(AR-C160/C270)

<SIM46-18 Data detail>

Disp PosNo.	Disp Chara	Default Value	Min Value	Max Value	Contents
A	POINT1	500	1	999	Half tone reference correction table S46 correction quantity: Text Photo/Photo black B/W density 0
↓	↓	↓	↓	↓	↓
O	POINT15	500	1	999	Half tone reference correction table S46 correction quantity: Text Photo/Photo black B/W density 14



SIMULATION NO.46-18
ENGINE COLOR BALANCE[(TEXT/)PHOTO(B/W)]
A: 500
[1-999]
A:500;POINT1
B:500;POINT2
C:500;POINT3
D:500;POINT4

46 - 19

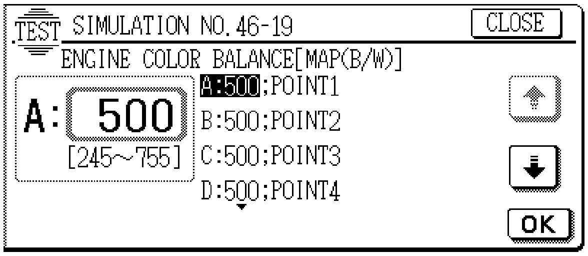
Purpose	Adjustment
Function (Purpose)	Used to adjust the copy density (gamma). (Monochrome/Map mode)(AR-C150/C250/C160/C270)
Section	ICU
Item	Picture quality Density
Operation/ Procedure	1. Select the adjustment point with [↑], [↓] keys. 2. Enter the adjustment value of the selected point with the 10-key.

3. Press the [OK] key.
   (The entered value is set.)

(AR-C150/C250)

<SIM46-19 Data detail>

Disp PosNo.	Disp Chara	Default Value	Min Value	Max Value	Contents
A	POINT1	500	245	755	Half tone reference correction table S46 correction quantity: black B/W density 0 for map
↓	↓	↓	↓	↓	↓
O	POINT15	500	245	755	Half tone reference correction table S46 correction quantity: black B/W density 14 for map

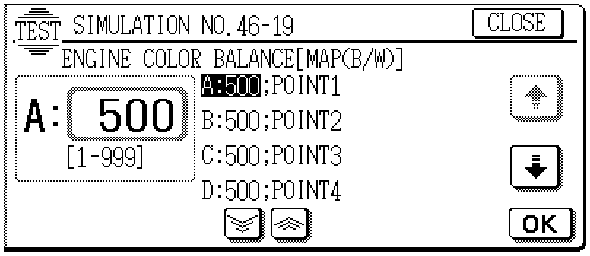


SIMULATION NO.46-19
ENGINE COLOR BALANCE[MAP(B/W)]
A: 500
[245~755]
A:500;POINT1
B:500;POINT2
C:500;POINT3
D:500;POINT4

(AR-C160/C270)

<SIM46-19 Data detail>

Disp PosNo.	Disp Chara	Default Value	Min Value	Max Value	Contents
A	POINT1	500	1	999	Half tone reference correction table S46 correction quantity: black B/W density 0 for map
↓	↓	↓	↓	↓	↓
O	POINT15	500	1	999	Half tone reference correction table S46 correction quantity: black B/W density 14 for map



SIMULATION NO.46-19

ENGINE COLOR BALANCE[MAP(B/W)]

A: 500

[1-999]

A:500;POINT1

B:500;POINT2

C:500;POINT3

D:500;POINT4

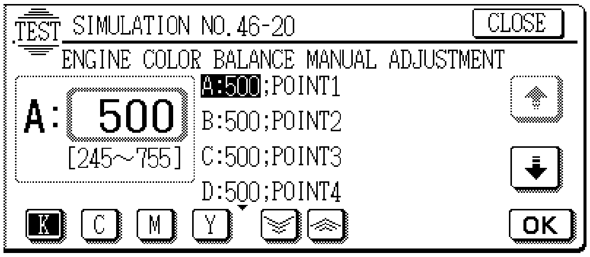
46 - 20

Purpose	Adjustment
Function (Purpose)	Used to adjust the copy density (gamma). (Color/ All modes) (The copy color balances (gamma) in all copy modes are changed.) The operations are the same as SIM 46-21, but printing is not performed.
Section	ICU
Item	Picture quality Color balance
Operation/ Procedure	1. Select the color to be adjusted with the color keys (K, C, M, Y).

2. Select the adjustment point with [↑], [↓] keys.
3. Enter the adjustment value of the selected point with the 10-key.
4. Press the [OK] key.
   (The entered value is set.)
5. Press the [EXECUTE] key.
   The color balance adjustment test pattern corresponding to the entered adjustment value is printed.

(AR-C150/C250)

Disp PosNo.	Disp Chara	Default Value	Min Value	Max Value	Contents
A	POINT1	500	245	755	Half tone reference correction table S46 correction quantity: black density 0 for all
↓	↓	↓	↓	↓	↓
O	POINT15	500	245	755	Half tone reference correction table S46 correction quantity: black density 14 for all
A	POINT1	500	245	755	Half tone reference correction table S46 correction quantity: cyan density 0 for all
↓	↓	↓	↓	↓	↓
O	POINT15	500	245	755	Half tone reference correction table S46 correction quantity: cyan density 14 for all
A	POINT1	500	245	755	Half tone reference correction table S46 correction quantity: magenta density 0 for all
↓	↓	↓	↓	↓	↓
O	POINT15	500	245	755	Half tone reference correction table S46 correction quantity: magenta density 14 for all
A	POINT1	500	245	755	Half tone reference correction table S46 correction quantity: yellow density 0 for all
↓	↓	↓	↓	↓	↓
O	POINT15	500	245	755	Half tone reference correction table S46 correction quantity: yellow density 14 for all



SIMULATION NO.46-20

ENGINE COLOR BALANCE MANUAL ADJUSTMENT

A: 500

[245~755]

A:500;POINT1

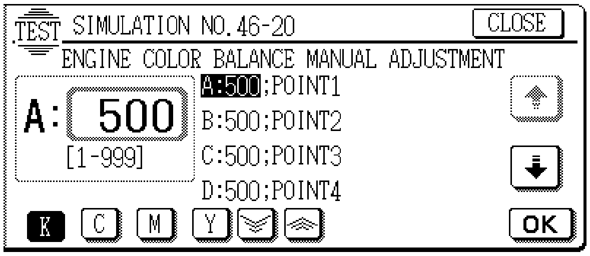
B:500;POINT2

C:500;POINT3

D:500;POINT4

(AR-C160/C270)

Disp PosNo.	Disp Chara	Default Value	Min Value	Max Value	Contents
A	POINT1	500	1	999	Half tone reference correction table S46 correction quantity: black density 0 for all
↓	↓	↓	↓	↓	↓
O	POINT15	500	1	999	Half tone reference correction table S46 correction quantity: black density 14 for all
A	POINT1	500	1	999	Half tone reference correction table S46 correction quantity: cyan density 0 for all
↓	↓	↓	↓	↓	↓
O	POINT15	500	1	999	Half tone reference correction table S46 correction quantity: cyan density 14 for all
A	POINT1	500	1	999	Half tone reference correction table S46 correction quantity: magenta density 0 for all
↓	↓	↓	↓	↓	↓
O	POINT15	500	1	999	Half tone reference correction table S46 correction quantity: magenta density 14 for all
A	POINT1	500	1	999	Half tone reference correction table S46 correction quantity: yellow density 0 for all
↓	↓	↓	↓	↓	↓
O	POINT15	500	1	999	Half tone reference correction table S46 correction quantity: yellow density 14 for all



SIMULATION NO.46-20

ENGINE COLOR BALANCE MANUAL ADJUSTMENT

A: 500

[1-999]

A:500;POINT1

B:500;POINT2

C:500;POINT3

D:500;POINT4

46 - 21

Purpose	Adjustment
Function (Purpose)	Used to adjust the copy color balance (gamma). (Color/All modes) (The color balance (gamma) in all the copy modes is changed.) Printing is performed while adjustment.
Section	ICU
Item	Picture quality Color balance
Operation/ Procedure	1. Select the color to be adjusted with the color keys (K, C, M, Y).

2. Select the adjustment point with [↑], [↓] keys.
3. Enter the adjustment value of the selected point with the 10-key.
4. Press the [OK] key.
   (The entered value is set.)
5. Press the [EXECUTE] key.
   The color balance adjustment test pattern corresponding to the entered adjustment value is printed.

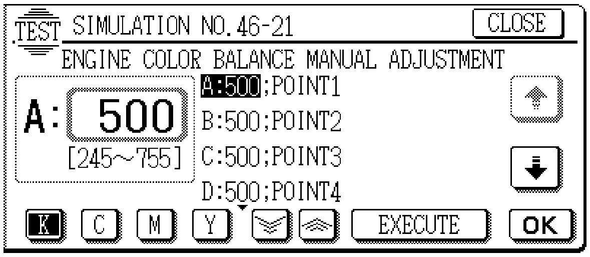
(AR-C150/C250)

Disp PosNo.	Disp Chara	Default Value	Min Value	Max Value	Contents
A	POINT1	500	245	755	Half tone reference correction table S46 correction quantity: black density 0 for all
↓	↓	↓	↓	↓	↓
O	POINT15	500	245	755	Half tone reference correction table S46 correction quantity: black density 14 for all
A	POINT1	500	245	755	Half tone reference correction table S46 correction quantity: cyan density 0 for all
↓	↓	↓	↓	↓	↓
O	POINT15	500	245	755	Half tone reference correction table S46 correction quantity: cyan density 14 for all
A	POINT1	500	245	755	Half tone reference correction table S46 correction quantity: magenta density 0 for all
↓	↓	↓	↓	↓	↓
O	POINT15	500	245	755	Half tone reference correction table S46 correction quantity: magenta density 14 for all
A	POINT1	500	245	755	Half tone reference correction table S46 correction quantity: yellow density 0 for all
↓	↓	↓	↓	↓	↓
O	POINT15	500	245	755	Half tone reference correction table S46 correction quantity: yellow density 14 for all

Common to all colors

Disp Chara	Default Value	Min Value	Max Value	Contents
COPIES	1	1	999	Number of sheets of self print
PAPER SEL:***	2	1	6	Paper feed tray when self print is executed

***: The display item differs depending on the data value.



SIMULATION NO.46-21

ENGINE COLOR BALANCE MANUAL ADJUSTMENT

A: 500

[245~755]

A:500;POINT1

B:500;POINT2

C:500;POINT3

D:500;POINT4

(AR-C160/C270)

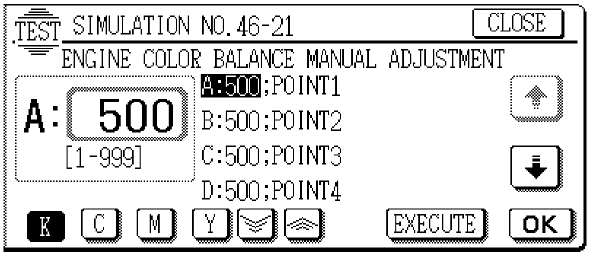
Disp PosNo.	Disp Chara	Default Value	Min Value	Max Value	Contents
A	POINT1	500	1	999	Half tone reference correction table S46 correction quantity: black density 0 for all
↓	↓	↓	↓	↓	↓
O	POINT15	500	1	999	Half tone reference correction table S46 correction quantity: black density 14 for all
A	POINT1	500	1	999	Half tone reference correction table S46 correction quantity: cyan density 0 for all
↓	↓	↓	↓	↓	↓
O	POINT15	500	1	999	Half tone reference correction table S46 correction quantity: cyan density 14 for all
A	POINT1	500	1	999	Half tone reference correction table S46 correction quantity: magenta density 0 for all
↓	↓	↓	↓	↓	↓
O	POINT15	500	1	999	Half tone reference correction table S46 correction quantity: magenta density 14 for all

Disp PosNo.	Disp Chara	Default Value	Min Value	Max Value	Contents
A	POINT1	500	1	999	Half tone reference correction table S46 correction quantity: yellow density 0 for all
↓	↓	↓	↓	↓	↓
O	POINT15	500	1	999	Half tone reference correction table S46 correction quantity: yellow density 14 for all

Common to all colors

Disp Chara	Default Value	Min Value	Max Value	Contents
COPIES	1	1	999	Number of sheets of self print
PAPER SEL:∗∗∗	2	1	6	Paper feed tray when self print is executed

∗∗∗: The display item differs depending on the data value.


TEST SIMULATION NO.46-21
ENGINE COLOR BALANCE MANUAL ADJUSTMENT
A: 500
[1-999]
A:500;POINT1
B:500;POINT2
C:500;POINT3
D:500;POINT4

Note	Do not change the setting in normal cases.

46 - 27

Purpose	Adjustment
Function (Purpose)	Used to adjust the black toner component image gamma. (Adjustment of the reproduction capability of black characters and lines) (AR-C250/C160/C270)
Section	ICU
Item	Picture quality
Operation/ Procedure	1. Enter the adjustment value with the 10-key. 2. Press the [OK] key.

This simulation is used to adjust the reproduction capability of black characters and black line edge areas by varying the gamma of black toner component image. Especially thin black characters and lines are affected by this adjustment.

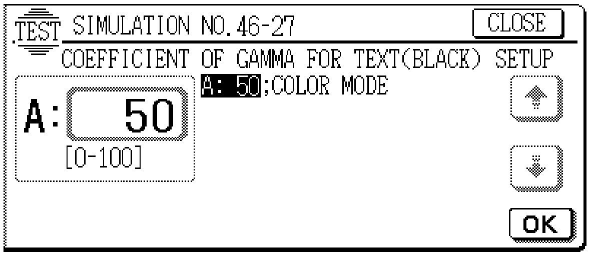
Note that the black toner component image quantity differs depending on each copy mode. When checking the result of this adjustment, therefore, be careful of the selected copy mode. It is advisable to use the Text/Printed Photo copy mode for this adjustment.

The greater the adjustment value is, the darker the black toner component (edge area) image is, and vice versa.

Set to normally default value.

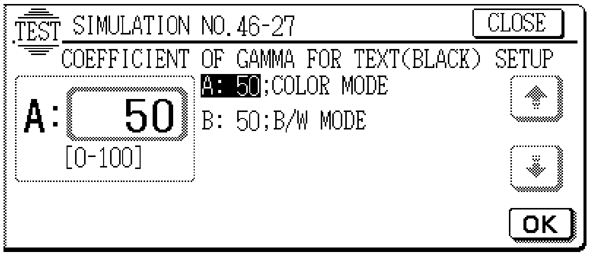
(AR-C250)

Disp PosNo.	Disp Chara	Default Value	Min Value	Max Value	Contents
A	COLOR MODE	50	0	100	Set value of calculation coefficient of black text engine, gamma curve (color)


TEST SIMULATION NO.46-27
COEFFICIENT OF GAMMA FOR TEXT(BLACK) SETUP
A: 50
[0-100]
A: 50;COLOR MODE

(AR-C160/C270)

Disp PosNo.	Disp Chara	Default Value	Min Value	Max Value	Contents
A	COLOR MODE	70	0	100	Set value of calculation coefficient of black text engine, gamma curve (color)
B	B/W MODE	50	0	100	Set value of calculation coefficient of black text engine, gamma curve (monochrome)


TEST SIMULATION NO.46-27
COEFFICIENT OF GAMMA FOR TEXT(BLACK) SETUP
A: 50
[0-100]
A: 50;COLOR MODE
B: 50;B/W MODE

48

48 - 6

Purpose	Adjustment
Function (Purpose)	Used to adjust each motor rotating speed.
Item	Operation
Operation/ Procedure	1. Select the motor to be adjusted with [↑], [↓] keys. 2. Enter the adjustment value with the 10-key.

3. Press the [OK] key.

A. RRM	Resist motor speed correction value
B. BELTM	Belt transport motor speed correction value
C. FSM (L)	Fusing motor speed correction value (Larger than B4)
D. FSM (S)	Fusing motor speed correction value (Smaller than B4)
E. DM(BK)	Drum motor speed correction value (Black)
F. DM(CL)	Drum motor speed correction value (Color)
G. PFM	PFM speed adjustment value (AR-C160/C270)
H. DVKM	Black developing motor speed correction adjustment value (AR-C160/C270)
I. DVCM	Color developing motor speed correction adjustment value (AR-C160/C270)

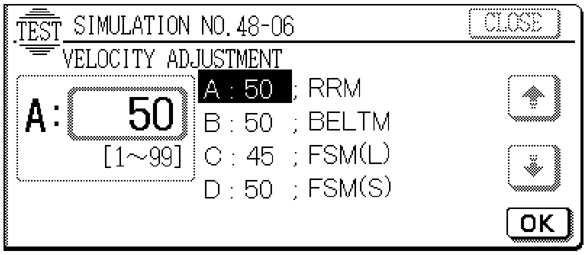
The speed is adjusted in the range of 1 – 99 with 50 as the reference value.

RPM: The smaller the set value is, the slower the speed is. ±1 for about 0.1% change

BELTM: The smaller the set value is, the slower the speed is. ±1 for about 0.1% change

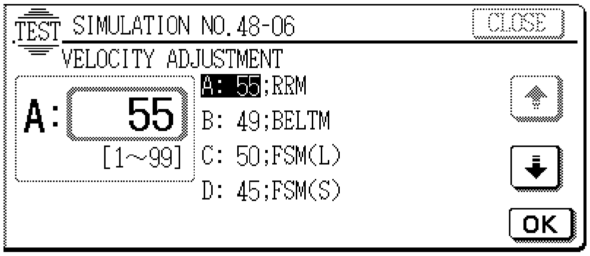
FSM (L): The smaller the set value is, the slower the speed is.
±1 for about 0.1% change
FSM (S): The smaller the set value is, the slower the speed is.
±1 for about 0.1% change
DM(BK): The smaller the set value is, the higher the speed is.
±1 for about 0.15% change
DM(CL): The smaller the set value is, the higher the speed is.
±1 for about 0.15% change
PFM: The smaller the set value is, the higher the speed is.
±1 for about 0.1% change
DVKM: The smaller the set value is, the higher the speed is.
±1 for about 0.1% change
DVCM: The smaller the set value is, the higher the speed is.
±1 for about 0.1% change

Item	Default		
	AR-C100/C150	AR-C250	AR-C160/C270
A. RRM	55	55	55
B. BELTM	51	51	51
C. FSM(L)	45	(JAPAN:50 EX JAPAN:40)	(JAPAN:55 EX JAPAN:50)
D. FSM(S)	40	(JAPAN:45 EX JAPAN:40)	(JAPAN:60 EX JAPAN:55)
E. DM(BK)	42	42	42
F. DM(CL)	37	37	37
G. PFM	—	—	50
H. DVKM	—	—	50
I. DVCM	—	—	50



SIMULATION NO.48-06
VELOCITY ADJUSTMENT
A: 50
[1~99]
A : 50 ; RRM
B : 50 ; BELTM
C : 45 ; FSM(L)
D : 50 ; FSM(S)

(AR-C160/C270)



SIMULATION NO.48-06
VELOCITY ADJUSTMENT
A: 55
[1~99]
A: 55;RRM
B: 49;BELTM
C: 50;FSM(L)
D: 45;FSM(S)

51

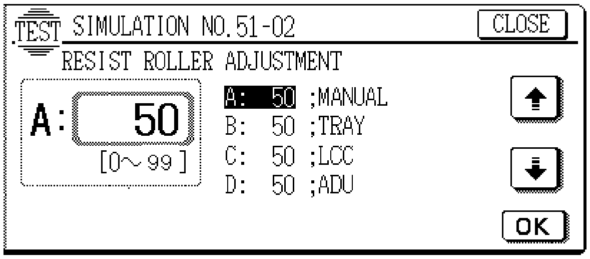
51 - 2

Purpose	Adjustment
Function (Purpose)	Used to adjust the contact pressure of paper on the resist roller of each section (each paper feed and duplex feed of the copier). (This adjustment is required when the print image position variations are considerably great or when paper jams occur frequently.)
Section	Paper transport (Discharge/Switchback/Transport)
Item	Operation
Operation/ Procedure	1. Select the adjustment mode with [↑],[↓]keys. 2. Enter the adjustment value with the 10-key.

3. Press the [OK] key. (The value entered in procedure 2 is set.)

Used to set the resist roller clutch (RRC) ON timing.
When the set value is increased, the timing is delayed and the paper pressure onto the resist roller is increased. When the set value is changed by 1, the timing is changed by about 1.0msec.
The set range is 0 – 99 for all.

MANUAL	Resist quantity adjustment in manual paper feed (Default: 40) Resist quantity in the machine tray paper feed Adjustment (Default: 60)
TRAY	Resist quantity in high speed transport in the copier and the desk paper feed.
LCC	Resist quantity adjustment in high speed transport in LCC paper feed. (Default: 70)
ADU	Resist quantity adjustment in ADU paper feed. (Default: 70)



SIMULATION NO.51-02
RESIST ROLLER ADJUSTMENT
A: 50
[0~99]
A: 50 ;MANUAL
B: 50 ;TRAY
C: 50 ;LCC
D: 50 ;ADU

64

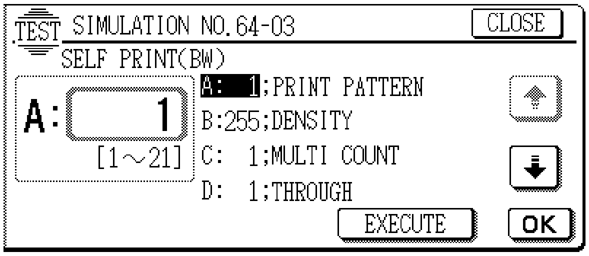
64 - 3

Purpose	Operation test/check
Function (Purpose)	Used to check the operation (self print) of the printer section. (The print pattern, the paper feed mode, the print mode, the print quantity, and the density can be set optionally.) (monochrome) (AR-C160/C270)
Section	Printer
Item	Operation
Operation/ Procedure	1. Select the item with [↑], [↓] keys. 2. Enter the print conditions with the 10-key.

3. Press the [EXECUTE] Key.
The self print pattern is printed.

The print color can be specified: [K] black, [C] cyan, [M] magenta, [Y] yellow.

Item	Display item		Low	High	Default value	Description
A	PRINT PATTERN		1	21	1	Self print pattern
	= 1					Gradation sub scanning direction (input process)
	= 2					Gradation main scanning direction (input process)
	= 3					Grid (input process)
	= 4					Gradation pattern: 255, 0 – 254, increment of 1 gradation
	= 5					Grid (Half tone)
	= 6					Gradation sub scanning direction (Half tone): 16 steps, 16 intervals, 15 start
	= 7					Gradation main scanning direction (Half tone): 16 steps, 16 intervals, 15 start
	= 8					Equal pitch pattern sub scanning direction 1 by 4
	= 9					Equal pitch pattern main scanning direction 1 by 4
	=10					Equal pitch pattern sub scanning direction 2 by 6
	=11					Equal pitch pattern main scanning direction 2 by 6
	=12					Gradation sub scanning direction (Half tone): 16 steps 2 intervals
	=13					All surface (HT)
	=14					Cross pattern (sub scanning direction)
	=15					Cross pattern (main scanning direction)
	=16					Black color print main scanning direction
	=17					Black color 10% (A4, A4R) density print
	=18					Dot print (input process)
	=19					Gradation pattern: 255, 0 – 254, increment of 1 gradation, (Text 1 × 1)
	=20					For ICU monitor software setup LSU memory (without input DMA start) (Not operating)
	=21					For ICU monitor software setup PG (with input DMA start) (Not operating)
	=22					Print lattice pattern (25 MHz)
B	DENSITY		1	255	255	Gradation level
C	MULTI COUNT		1	999	1	Self print quantity setting
D	EXPO:		1	11	1	Density mode
	= 1	THROUGH				No process (through)
	= 2	CHAR/PIC AUTO				Test/Printed Photo Auto
	= 3	CHAR/PIC MANUAL				Text/Printed Photo Manual
	= 4	CHAR/PRPIC AUTO				Text/Photo Auto
	= 5	CHAR/PRPIC MANU				Text/Photo Manual
	= 6	CHAR AUTO				Text Auto
	= 7	CHAR MANUAL				Text manual
	= 8	PRINT PIC				Printed Photo
	= 9	PRINT PAPER				Photo
	= 10	MAP				Map
	= 11	STANDARD DITHA				Dither without correction
E	PAPER:		1	6	3	Cassette selection
	= 1	MANUAL				Manual paper feed
	= 2	CAS1				Cassette 1
	= 3	CAS2				Cassette 2 (Default)
	= 4	CAS3				Cassette 3
	= 5	CAS4				Cassette 4
	= 6	LCC				LCC
F	DUPLEX		1	2	1	Duplex print select
	= 1	NO				Single
	= 2	YES				Duplex



SIMULATION NO.64-03

SELF PRINT(BW)

A: 1

[1～21]

A: 1;PRINT PATTERN

B:255;DENSITY

C: 1;MULTI COUNT

D: 1;THROUGH

[10] SELF DIAG MESSAGE AND TROUBLESHOOTING

5. List

Main code	Sub code	Title (Content)	Section	Operation mode	Remedy	NOTE
A0	0	ROM trouble (PCU MAIN PWB)	PCU MAIN PWB	When POWER ON	Power OFF/ON	
C1	10	Main charger trouble (BLACK)	Image process	Warm-up / Initialize	Power Source-ON	
C1	11	Main charger trouble (CYAN)	Image process	Warm-up / Initialize	Power Source-ON	
C1	12	Main charger trouble (MAGENTA)	Image process	Warm-up / Initialize	Power Source-ON	
C1	13	Main charger trouble (YELLOW)	Image process	Warm-up / Initialize	Power Source-ON	
EE	EL	Toner concentration reference control level setup trouble (Overtoner)	Image process (Developing)	SIM 25-2	Power Source-ON	
EE	EU	Toner concentration reference control level setup trouble (Undertoner)	Image process (Developing)	SIM 25-2	Power source-ON	
E7	10	Shading trouble (Black correction)	Scanner (reading) /ICU SCAN PWB	Warm-up / Initialize	Power source-ON	
E7	11	Shading trouble (White correction)	Scanner (reading) /ICU SCAN PWB	Warm-up / Initialize	Power source-ON	
E7	20	Laser beam sensor trouble (BLACK)	Scanner (writing)	All modes	Power source-ON	
E7	21	Laser beam sensor trouble (CYAN)	Scanner (writing)	All modes	Power source-ON	
E7	22	Laser beam sensor trouble (MAGENTA)	Scanner (writing)	All modes	Power source-ON	
E7	23	Laser beam sensor trouble (YELLOW)	Scanner (writing)	All modes	Power source-ON	
E7	24	Laser beam detection trouble (BLACK)	Scanner (writing)	All modes	Power source-ON	
E7	25	Laser beam detection trouble (CYAN)	Scanner (writing)	All modes	Power source-ON	
E7	26	(Laser beam detection trouble (MAGENTA)	Scanner (writing)	All modes	Power source-ON	
E7	27	Laser beam detection trouble (YELLOW)	Scanner (writing)	All modes	Power source-ON	
E7	30	ICU PWB FLASH ROM trouble	ICU MAIN PWB	Warm-up / Initialize	Power source-ON	
E7	90	ICU MAIN PWB - PCU MAIN PWB communication trouble (PCU side detection)	ICU MAIN PWB / PCU MAIN PWB	All modes	Power source-ON	
E8	0	ICU MAIN PWB - PCU MAIN PWB communication trouble (PCU side detection)	ICU MAIN PWB / PCU MAIN PWB	All modes	Power source-ON	
E8	1	ICU MAIN PWB - PCU MAIN PWB communication trouble (PCU side detection)	ICU MAIN PWB / PCU MAIN PWB	All modes	Power source-ON	
F1	0	Communication trouble between PCU MAIN PWB - Finisher control PWB (Detected by PCU MAIN PWB)	PCU MAIN PWB / Finisher control PWB	When power ON / initial operation	Power OFF/ON	
F1	2	Finisher paper exit trouble (Finisher side detection)	Finisher paper exit	When power ON / initial operation	Power OFF/ON	
F1	10	Finisher staple trouble (Finisher side detection)	Finisher stapler	When stapling	Power OFF/ON	
F1	11	Finisher bundle process trouble (Finisher side detection)	Finisher paper exit	When power ON / initial operation	Power OFF/ON	
F1	15	Finisher tray lift trouble (Finisher side detection)	Finisher tray lift	All modes	Power OFF/ON	
F1	19	Finisher alignment trouble (Front side) (Finisher side detection)	Finisher alignment	When POWER ON	Power OFF/ON	
F1	20	Finisher alignment trouble (Rear side) (Finisher side detection)	Finisher alignment	When POWER ON	Power OFF/ON	
F1	70	PCU PWB - sorter control PWB communication trouble (PCU detection)	Sorter / PCU MAIN PWB	Warm-up / Initialize	Power source-ON	

Main code	Sub code	Title (Content)	Section	Operation mode	Remedy	NOTE
F1	80	Sorter power abnormality (Sorter side detection)	Sorter	All modes	Power source-ON	
F1	81	Sorter transport motor trouble (Sorter side detection)	Sorter	Sort/group operation mode	Power source-ON	
F1	83	Sorter push bar motor trouble (Sorter side detection)	Sorter	Initializing	Power source-ON	
F1	87	Sorter staple unit oscillation motor trouble (Sorter side detection)	Sorter	Initializing	Power source-ON	
F1	89	Sorter bin shift motor trouble (Sorter side detection)	Sorter	Sort / Group operation mode	Power source-ON	
F1	91	Bin paper sensor auto adjustment trouble (Sorter side detection)	Sorter	Sort/group operation mode	Power source-ON	
F1	94	Sorter staple key trouble	Sorter	Staple	Power source-ON	
F2	40	Toner concentration sensor trouble (BLACK)	Developing	All modes	Power source-ON	
F2	41	Toner concentration sensor trouble (CYAN)	Developing	All modes	Power source-ON	
F2	42	Toner concentration sensor trouble (MAGENTA)	Developing	All modes	Power source-ON	
F2	43	Toner concentration sensor trouble (YELLOW)	Developing	All modes	Power source-ON	
F2	44	Image density sensor trouble (BLACK) (Transfer belt surface reflection abnormality)	Image process (Transfer)	Image density correction	Power source-ON	Print is disabled in USA/Japan. For the other destinations, print is enabled. However, the print density must be forcibly decreased.
F2	45	Image density sensor trouble (COLOR) (Calibration plate reflection abnormality)	Image process (Transfer)	Image density correction	Power source-ON	Print is disabled in USA/Japan. For the other destinations, print is enabled. However, the print density must be forcibly decreased.
F2	50	Drum marking detection trouble (BLACK)	Image process (OPC drum)	OPC drum rotation	Power source-ON	In the case of AR-C100, the error code is displayed (print disabled). In the case of AR-C150/C250/C160/C270, the error code is stored in the trouble memory (print enabled).
F2	51	Drum marking detection trouble (CYAN)	Image process (OPC drum)	OPC drum rotation	Power source-ON	In the case of AR-C100, the error code is displayed (print disabled). In the case of AR-C150/C250/C160/C270, the error code is stored in the trouble memory (print enabled).
F2	52	Drum marking detection trouble (MAGENTA)	Image process (OPC drum)	OPC drum rotation	Power source-ON	In the case of AR-C100, the error code is displayed (print disabled). In the case of AR-C150/C250/C160/C270, the error code is stored in the trouble memory (print enabled).
F2	53	Drum marking detection trouble (YELLOW)	Image process (OPC drum)	OPC drum rotation	Power source-ON	In the case of AR-C100, the error code is displayed (print disabled). In the case of AR-C150/C250/C160/C270, the error code is stored in the trouble memory (print enabled).
F2	54	Drum marking sensor gain adjustment error (BLACK)	Image process (OPC drum)	Image density correction	Power source-ON	Print is disabled in USA/Japan. For the other destinations, print is enabled. However, the print density must be forcibly decreased.
F2	55	Drum marking sensor gain adjustment error (CYAN)	Image process (OPC drum)	Image density correction	Power source-ON	Print is disabled in USA/Japan. For the other destinations, print is enabled. However, the print density must be forcibly decreased.
F2	56	Drum marking sensor gain adjustment error (MAGENTA)	Image process (OPC drum)	Image density correction	Power source-ON	Print is disabled in USA/Japan. For the other destinations, print is enabled. However, the print density must be forcibly decreased.
F2	57	Drum marking sensor gain adjustment error (YELLOW)	Image process (OPC drum)	Image density correction	Power source-ON	Print is disabled in USA/Japan. For the other destinations, print is enabled. However, the print density must be forcibly decreased.

Main code	Sub code	Title (Content)	Section	Operation mode	Remedy	NOTE
F2	58	Process humidity sensor trouble	Image process (Transfer)	All modes	Power source-ON	In the case of AR-C100, the error code is displayed (print disabled). In the case of AR-C150/C250/C160/C270, the error code is stored in the trouble memory (print enabled).
F2	63	Temperature sensor trouble (Image process)	Image process	All modes	Power source-ON	In the case of AR-C100, the error code is displayed (print disabled). In the case of AR-C150/C250/C160/C270, the error code is stored in the trouble memory (print enabled).
F2	80	Half tone correction (1st patch) trouble (BLACK)	Image process	Image density correction	Power source-ON	
F2	81	Half tone correction (1st patch) trouble (CYAN)	Image process	Image density correction	Power source-ON	
F2	82	Half tone correction (1st patch) trouble (MAGENTA)	Image process	Image density correction	Power source-ON	
F2	83	Half tone correction (1st patch) trouble (YELLOW)	Image process	Image density correction	Power source-ON	
F2	84	Half tone correction (2nd patch) trouble (BLACK)	Image process	Image density correction	Power source-ON	
F2	85	Half tone correction (2nd) patch trouble (CYAN)	Image process	Image density correction	Power source-ON	
F2	86	Half tone correction (2nd) patch trouble (MAGENTA)	Image process	Image density correction	Power source-ON	
F2	87	Half tone correction (2nd) patch trouble (YELLOW)	Image process	Image density correction	Power source-ON	
F2	90	Half tone correction trouble	Image process	Image density correction	Power source-ON	
F3	12	Lift-up trouble (Paper 1)	Paper tray 1	Paper tray lift up	Power source-ON	
F3	22	Lift-up trouble (Paper 2)	Paper tray 2	Paper tray lift up	Power source-ON	
F3	32	Lift-up trouble (Paper 3)	Paper tray 3	Paper tray lift up	Power source-ON	
F3	42	Lift-up trouble (Paper 4)	Paper tray 4	Paper tray lift up	Power source-ON	
F9	0	ICU PWB-printer controller communication trouble (ICU detection)	ICU IMAGE PWB / PRINTER CONTROLLER	Warm-up / Printing	Power source-ON	
H2	0	Fusing main temperature sensor (lower)(Thermistor) open/Fusing unit not-installed (THS1)	Fusing	All modes	Power Source-ON	
H2	1	Fusing main temperature sensor (lower)(Thermistor) open/Fusing unit not-installed (THS2)	Fusing	All modes	Power Source-ON	
H2	2	Fusing main temperature sensor (upper)(Thermistor) open/Fusing unit not-installed (THS3)	Fusing	All modes	Power Source-ON	
H2	3	Fusing main temperature sensor (upper)(Thermistor) open/Fusing unit not-installed (THS4)	Fusing	All modes	Power Source-ON	
H3	0	Fusing section high temperature trouble (THS1)	Fusing	All modes	SIM 14	
H3	1	Fusing section high temperature trouble (THS2)	Fusing	All modes	SIM 14	
H3	2	Fusing section high temperature trouble (THS3)	Fusing	All modes	SIM 14	
H3	3	Fusing section high temperature trouble (THS4)	Fusing	All modes	SIM 14	
H4	0	Fusing section (upper) low temperature trouble (HL1)	Fusing	All modes	SIM 14	
H4	1	Fusing section (lower) low temperature trouble (HL2)	Fusing	All modes	SIM 14	
H5	1	Paper jam in the fusing/paper exit sections	Fusing	Copy / Print	SIM 14	

Main code	Sub code	Title (Content)	Section	Operation mode	Remedy	NOTE
H6	0	Fusing oil empty (Oil sensor trouble)	Fusing	All modes	Power Source-ON	
H7	0	AC input voltage (HLV) trouble	Power source	All modes	Power Source-ON	
L1	0	Scanner feed trouble	Scanner (reading)	Initialize / Copy	Power Source-ON	
L3	0	Scanner return trouble	Scanner (reading)	Initialize / Copy	Power Source-ON	
L4	3	Fusing motor trouble	Fusing	Warm-up / Copy/ Print	Power Source-ON	
L4	4	Developing motor trouble (BLACK)	Developing drive	Warm-up / Copy/ Print	Power Source-ON	
L4	5	Developing motor trouble (COLOR)	Developing drive	Warm-up / Copy / Print	Power Source-ON	
L4	6	Transfer belt lift trouble	Image process (Transfer)	Color / Monochrome copy (print) mode select	Power Source-ON	
L6	10	Laser scanner (writing) motor lock detection (BLACK)	Laser scanner (writing)	All modes	Power Source-ON	
L6	11	Laser scanner (writing) motor lock detection (CYAN)	Laser scanner (writing)	All modes	Power Source-ON	
L6	12	Laser scanner (writing) motor lock detection (MAGENTA)	Laser scanner (writing)	All modes	Power Source-ON	
L6	13	Laser scanner (writing) motor lock detection (YELLOW)	Laser scanner (writing)	All modes	Power Source-ON	
L8	1	Power full wave signal (FWS) trouble	Power source	All modes	Power Source-ON	
L8	2	Power full wave signal (FWS) width trouble	Power source	All modes	Power Source-ON	
PF	0	RIC copy inhibit signal reception	PCU PWB	RIC communication	SIM 17	
U0	0	Operation control PWB - PCU MAIN PWB communication trouble (OPE/PCU detection)	Operation PWB/PCU MAIN PWB	All modes	Power Source-ON	
U0	80	PCU MAIN PWB - PCUSUB PWB communication trouble (PCU detection)	PCU SUB PWB/PCU MAIN PWB	All modes	Power Source-ON	
U2	0	EEPROM read/write error (PCU MAIN PWB)	PCU PWB	Warm-up	SIM 16	
U2	11	Counter data (EEPROM) check sum error (PCU MAIN PWB)	PCU PWB	All modes	SIM 16	
U2	12	Setup/Adjustment value data (EEPROM) check sum error (PCU MAIN PWB)	PCU PWB	All modes	SIM 16	
U2	20	EEPROM read/write error (ICU MAIN PWB)	ICU PWB	Warm-up	SIM 16	
U2	21	Counter (EEPROM) check sum error (ICU MAIN PWB)	ICU PWB	All modes	SIM 16	
U2	22	Setup, adjustment value (EEPROM) check sum error (ICU MAIN PWB)	ICU PWB	All modes	SIM 16	
U2	30	Manufacturing No. data (ICU MAIN PWB/PCU MAIN PWB) discrepancy	ICU PWB / PCU PWB	All modes	SIM 16	
U4	0	PCU MAIN PWB - ADU communication trouble	PCU PWB / Duplex control PWB	Warm-up / Initialize	Power Source-ON	
U4	2	ADU Alignment plate operation trouble	Duplex	Initialize/Duplex copy (print)	Power Source-ON	
U4	12	ADU transport motor trouble	Duplex	Duplex copy (print)	Power Source-ON	
U5	0	PCU MAIN PWB - RADF communication trouble	PCU PWB / RADF control PWB	Warm-up / Initialize	Power Source-ON	
U5	1	RADF resist sensor trouble	RADF	RADF	Power Source-ON	
U5	2	RADF expulsion sensor trouble	RADF	RADF	Power Source-ON	

Main code	Sub code	Title (Content)	Section	Operation mode	Remedy	NOTE
U5	3	RADF timing sensor trouble	RADF	RADF	Power Source-ON	
U5	11	RADF paper feed motor trouble	RADF	RADF	Power Source-ON	
U6	9	Large capacity tray (LCC) lift motor trouble	Large capacity tray	Paper feed	SIM 15	
U6	20	PCU MAIN PWB-Large capacity tray (LCC) communication trouble	Large capacity tray control PWB / PCU MAIN PWB	Warm-up / Initialize	Power Source-ON	
U6	21	Large capacity tray (LCC) transport motor trouble	Large capacity tray	Paper feed	Power Source-ON	
U6	22	Large capacity tray (LCC) 24v power trouble	Large capacity tray	All modes	Power Source-ON	
U7	0	RIC communication trouble	PCU PWB	RIC communication	Power Source-ON	
UC	0	ICU SCAN PWB - CPT PWB communication trouble	ICU SCAN PWB / CPT PWB	Copy	Power Source-ON	
UC	1	CPT board program trouble	CPT PWB	Warm-up / Initialize	Power Source-ON	
UC	2	CPT board ASIC trouble	CPT PWB	Warm-up / Initialize	Power Source-ON	
UC	3	CPT board ROM trouble	CPT PWB	Warm-up / Initialize	Power Source-ON	
UC	4	CPT board RAM trouble	CPT PWB	Warm-up / Initialize	Power Source-ON	
UC	5	CPT board model code data trouble	ICU MAIN PWB / CPT PWB	Warm-up / Initialize	Power Source-ON	

6. Details

Main code	Sub code	Title	**Shading trouble (White correction)**	
E7	**11**	Phenomena	Display	Lamp
				Message
			Detail	In shading correction, the CCD white reading level is abnormal (with the scanner lamp OFF).
			Section	Scanner (reading) / ICU SCAN PWB
			Operation mode	Warm-up / Initialize
			Note	
		Case 1	Trouble position/Cause	Improper CCD white level gain Too great CCD white level gain
			Remedy	(Check) 1) Use SIM 63-1 to check the values of ADJUST ODD GAIN and ADJUST EVEN GAIN of each color of R/G/B. (There are six values in total.) (AR-C150) 2) Add 25 to each value of GAIN ODD and GAIN EVEN of R/G/B checked in procedure 1) and make notes of the total values. (AR-C150) 3) Enter the SIM 46-6 mode, and replace each value of GAIN ODD and GAIN EVEN of R/G/B with the total values calculated in procedure 2). (Input the new value.) (AR-C150) 4) Cancel the simulation. 5) Turn OFF/ON the power, and shading operation will be performed.
				(Repair) Power OFF-ON
				(After work)
			Note	This trouble occasionally happens when the CCD unit (with the lens) is replaced.
		Case 2	Trouble position/cause	Bad connection of the flat cable between the CCD unit and the ICU SCAN PWB.
			Remedy	(Check) Check connection of the flat cable between the CCD unit and the ICU SCAN PWB.
				(Repair) Replace the flat cable between the CCD unit and the ICU SCAN PWB. / Power Source-ON
				(After-work)
			Note	

Main code	Sub code	Title	**Shading trouble (White correction)**	
E7	**11**	Case 3	Trouble position/cause	CCD unit trouble
			Remedy	(Check) CCD black offset level check (SIM 46-6) / Shading correction result check (SIM 63-1) (AR-C150 only)
				(Repair) Replace the CCD unit. / Power Source-ON
				(After-work) Adjust ADJM17-ADJ1.
			Note	
		Case 4	Trouble position/cause	ICU SCAN PWB, ICU IMAGE PWB, ICU MAIN PWB trouble
			Remedy	(Check)
				(Repair) ICU SCAN PWB, ICU IMAGE PWB, ICU MAIN PWB. / Power Source-ON
				(After-work) Adjust ADJM9/M10/M12/M13/M14/M15/M17. / Re-enter setup values and adjustment values. (Install the EEPROM of the defective ICU MAIN PWB to a new ICU MAIN PWB.)
			Note	
		Case 5	Trouble position/cause	Scanner section dirt (Shading sheet trouble (dirt, scratch)/Lens dirt/Mirror dirt/Reflector dirt)
			Remedy	(Check) Scanner section dirt check
				(Repair) Clean the scanner section (shading sheet/lens/CCD/mirror/reflector)./Power Source-ON
				(After-work)
			Note	
		Case 6	Trouble position/cause	Scanner lamp insufficient light quantity (Scanner lamp trouble/scanner lamp control PWB trouble)
			Remedy	(Check) Check the scanner lamp applying voltage (62.3V).
				(Repair) Replace the scanner lamp. / Replace the scanner lamp control PWB. / Power Source-ON
				(After-work) Adjust ADJM17-ADJ1.
			Note	

Main code	Sub code	Title	**Finisher paper exit trouble/reversing trouble (Finisher side detection)**	
F1	**2**	Phenomenon	Display	Lamp
				Message
			Detail	In the initial operation, the motor rotation sensor output signal is not recognized within the specified time after output of the finisher paper exit motor / reversing motor ON signal.
			Section	Finisher paper exit
			Operation mode	Power ON/ Initial operation
			NOTE	
		Case 1	Trouble position / Cause	Paper exit motor trouble / Reversing motor trouble / Paper exit motor rotation sensor trouble / Reversing motor rotation sensor trouble
			Remedy	(Check) Check the paper exit motor / reversing motor / Reversing motor rotation sensor / paper exit motor rotation sensor operations. (SIM 3-1/2)
				(Repair) Replace the paper exit motor. / Replace the paper exit motor rotation sensor. / Power OFF-ON
				(After work)
		Case 2	Trouble position / Cause	Paper exit mechanism section trouble
			Remedy	(Check) Check the paper exit mechanism section operation. (SIM 3-1/2)
				(Repair) Replace or repair parts of the paper exit mechanism section. / Power OFF-ON
				(After work)
		Case 3	Trouble position / Cause	Finisher control PWB trouble
			Remedy	(Check) Check the finisher control PWB operation. (SIM 3-1/2)
				(Repair) Replace the finisher control PWB. / Power OFF-ON
				(After work) Make various adjustments related to the finisher electric section. (Install the EEPROM of the defective finisher control PWB to a new finisher control PWB.)

Main code	Sub code	Title	**Fusing motor trouble**	
L4	3	Phenomena	Display	Lamp
				Message
			Detail	The motor lock signal is detected for 50ms or more during rotation of the fusing motor.
			Section	Paper feed
			Operation mode	Paper feed
			Note	
		Case 1	Trouble position/cause	Fusing motor trouble
			Remedy	(Check) Check the fusing motor operation. (SIM 6-1)
				(Repair) Replace the fusing motor. / Power Source-ON
				(After-work)
			Note	
		Case 2	Trouble position/cause	PCU MAIN PWB trouble
			Remedy	(Check)
				(Repair) Replace the PCU MAIN PWB. / Power Source-ON
				(After-work) Re-enter setup values and adjustment values. (Install the EEPROM of the defective PCU MAIN PWB to a new PCU MAIN PWB.)
			Note	
		Case 3	Trouble position/cause	Fusing mechanism section trouble.
			Remedy	(Check) Check the loads in the fusing mechanism section.
				(Repair) Repair or replace parts in the fusing mechanism section. / Power Source-ON
				(After-work)
			Note	

Main code	Sub code	Title	**Developing motor trouble (BLACK)**	
L4	4	Phenomena	Display	Lamp
				Message
			Detail	The motor lock signal is detected for 3.5sec or more when the developing motor is ON.
			Section	Developing drive
			Operation mode	Warm-up / Copy / Print
			Note	
		Case 1	Trouble position/cause	Developing motor trouble
			Remedy	(Check) Check the developing motor operation (SIM 25-1).
				(Repair) Replace the developing motor. / Power Source-ON
				(After-work)
			Note	
		Case 2	Trouble position/cause	Developing mechanism section trouble
			Remedy	(Check) Check the loads of the developing mechanism section.
				(Repair) Repair or replace the parts in the developing mechanism section. / Power Source-ON
				(After-work)
			Note	
		Case 3	Trouble position/cause	PCU MAIN PWB trouble
			Remedy	(Check)
				(Repair) Replace the PCU MAIN PWB. / Power Source-ON
				(After-work) Re-enter setup values and adjustment values. (Install the EEPROM of the defective PCU MAIN PWB to a new PCU MAIN PWB.)
			Note	

Main code	Sub code	Title	**Developing motor trouble (COLOR)**	
L4	**5**	Phenomena	Display	Lamp
				Message
			Detail	The motor lock signal is detected for 3.5sec or more when the developing motor is ON.
			Section	Developing drive
			Operation mode	Warm-up / Copy / Print
			Note	
		Case 1	Trouble position/cause	Developing motor trouble
			Remedy	(Check) Check the developing motor operation (SIM 25-1).
				(Repair) Replace the developing motor. / Power Source-ON
				(After-work)
			Note	
		Case 2	Trouble position/cause	Developing mechanism section trouble
			Remedy	(Check) Check the loads of the developing mechanism section.
				(Repair) Repair or replace the parts in the developing mechanism section. / Power Source-ON
				(After-work)
			Note	
		Case 3	Trouble position/cause	PCU MAIN PWB trouble
			Remedy	(Check)
				(Repair) Replace the PCU MAIN PWB. / Power Source-ON
				(After-work) Re-enter setup values and adjustment values. (Install the EEPROM of the defective PCU MAIN PWB to a new PCU MAIN PWB.)
			Note	
		Case 4	Trouble position/cause	Developing motor power line trouble
			Remedy	(Check) Check the fuse (F707).
				(Repair) Replace the fuse (F707). / Power Source-ON
				(After-work)
			Note	

Main code	Sub code	Title	**PCU MAIN PWB - ADU communication trouble / Discrepancy of the model**	
U4	**0**	Phenomena	Display	Lamp
				Message
			Detail	Communication test error in warm-up / Discrepancy of the model
			Section	PCU PWB / Duplex control PWB
			Operation mode	Warm-up / Initialize
			Note	
		Case 1	Trouble position/cause	Bad connection of the signal line between the PCU MAIN PWB and the ADU control PWB.
			Remedy	(Check) Check connection of the signal line between the PCU MAIN PWB and the ADU control PWB.
				(Repair) Repair or replace the cable and the connector between the PCU MAIN PWB and the ADU control PWB. / Power Source-ON
				(After-work)
			Note	
		Case 2	Trouble position/cause	PCU MAIN PWB trouble
			Remedy	(Check)
				(Repair) Replace the PCU MAIN PWB. / Power Source-ON
				(After-work) Re-enter setup values and adjustment values. (Install the EEPROM of the defective PCU MAIN PWB to a new PCU MAIN PWB.)
			Note	
		Case 3	Trouble position/cause	ADU control PWB trouble
			Remedy	(Check)
				(Repair) ADU control PWB replacement / Power Source-ON
				(After-work)
			Note	
		Case 4	Trouble position/cause	Discrepancy of the model code (The AR-DU2, instead of the AR-DU2N, is erroneously installed to the AR-C160/C270.).
			Remedy	(Check) Check that the AR-DU2N or the AR-DU2 is installed.
				(Repair) Install the AR-DU2N or remodel the AR-DU2 into the AR-DU2N. (Replace the AR-DU2 ROM with the AR-DU2N ROM, and replace the 1A fuse on the ADU control PWB with the 1.25A fuse.)
				(After-work)
			Note	

Main code	Sub code	Title	**PCU MAIN PWB- Large capacity tray (LCC) communication trouble / Discrepancy of the model**	
U6	**20**	Phenomena	Display	Lamp
				Message
			Detail	Communication test error in warm-up / Discrepancy of the model
			Section	Large capacity tray control PWB / PCU MAIN PWB
			Operation mode	Warm-up / Initialize
			Note	
		Case 1	Trouble position/cause	Bad connection of the signal line between the PCU MAIN PWB and the large capacity tray (LCC) control PWB
			Remedy	(Check) Check connection of the signal line between the PCU MAIN PWB and the large capacity tray (LCC) control PWB.
				(Repair) Repair or replace the cable and the connector between the PCU MAIN PWB and the large capacity tray (LCC) control PWB. / Power Source-ON
				(After-work)
			Note	
		Case 2	Trouble position/cause	PCU MAIN PWB trouble
			Remedy	(Check)
				(Repair) Replace the PCU MAIN PWB. / Power Source-ON
				(After-work) Re-enter setup values and adjustment values. (Install the EEPROM of the defective PCU MAIN PWB to a new PCU MAIN PWB.)
			Note	
		Case 3	Trouble position/cause	Large capacity tray (LCC) control PWB trouble
			Remedy	(Check)
				(Repair) Large capacity tray (LCC) control PWB replacement / Power Source-ON
				(After-work)
			Note	
		Case 4	Trouble position/cause	Discrepancy of the model code (The AR-LC2, instead of the AR-LC2N, is erroneously installed to the AR-C160/C270.).
			Remedy	(Check) Check that the AR-LC2N or the AR-LC2 is installed.
				(Repair) Install the AR-LC2N or remodel the AR-LC2 into the AR-LC2N. (Replace the AR-LC2 ROM with the AR-LC2N ROM, and replace the 1A fuse on the ADU control PWB with the 1.25A fuse.)
				(After-work)
			Note	

[11] MAINTENANCE AND DISASSEMBLY/ASSEMBLY

1. Necessary procedure for maintenance and servicing

(1) Items to be performed before maintenance servicing 1

Item	Simulation	
Check the print counter value of each section in each operation mode.	22	1
Check the number of times of paper jams and troubles.	22	2
Check the paper jam positions and contents.	22	3
Check the paper jam positions and contents. (RADF section)	22	12
Check the trouble contents.	22	4
Prints the list of setups and adjustment values.	22	6
Check the number of use of the RADF, the sorter and the scanner.	22	8
Check the number of use of paper feed sections.	22	9

(2) Necessary work items in maintenance service

The work items necessary for maintenance are shown below.

Perform the work according to the following description when other than maintenance (when replacing a consumable part/when repairing and checking (without replacement of consumable parts)/ when installing/when cleaning the scanner (reading) section/etc.)

No	JOB No	Work item	Simulation		When installing	Repair (When a consumable part is replaced)/maintenance						When in repair/check (without replacing consumable parts)
						After replacing OPC drum (*1)	After replacing developer (*2)	After replacing transfer belt	After disposing transfer section waste toner	After cleaning scanner (reading) section	When in periodic maintenance	
1	ADJ M3	Toner concentration reference control level setup	25	2	*		*					
2		Developer counter clear	24	5			*					
3		OPC drum counter clear	24	7		*						
4	ADJ M5	Image density sensor adjustment	44	13				*			*	
5	ADJ M6	Image density sensor position adjustment	44	23				*			*	
6	ADJ M7	Image skew adjustment	64	1							*	
7	ADJ M8	OPC drum phase adjustment	44	20 (Old)/31 (New)	*	*						
8		Transfer section waste toner counter clear	24	8					*			
9		Half-tone correction level is set to zero.	44	27		*	*					
10	ADJ M9A (ADJ M9)	Sub scan direction image resist adjustment	50	22 (Auto)/ 20 (Manual)	*							
11	ADJ M9A (ADJ M10)	Main scan direction image resist adjustment	50	22 (Auto)/ 21 (Manual)	*							
12	ADJ M17	Copy quality adjustment			*							

Job No. indicates the title number of adjustment items specified in the chapter of the adjustments. Refer to Use this number when referring to the details, as necessary.

When the developer counter is cleared (SIM 24-5) and the OPC drum counter is cleared (SIM 24-7), the image density correction (process correction) is automatically performed.

(3) Items to be performed after maintenance servicing 3

Item	Simulation	
Paper jam, trouble data clear	24	1
Each paper feed section use number counter clear	24	2
RADF, sorter, scanner use number counter clear	24	3
Maintenance counter clear	24	4
Setup and adjustment data output	22	6

(4) Maintenance display

When the maintenance timing is reached, the following display is shown.

MAINTENANCE REQUIRED CODE: XX

The above two-digit code indicates the kind and the count of the maintenance counter.

The meaning of the CODE indication is as shown below.

CODE (XX) 1st digit	Meaning	
A	5K	Maintenance counter value set with SIM 21-1.
B	10K	
C	15K	
D	20K	
E	40K	
F	80K	

CODE (XX) 2nd digit	Meaning
T	The total maintenance counter has reached the value set with SIM 21-1.
C	The color maintenance counter has reached the value set with SIM 21-1.
A	Both the total maintenance counter and the color maintenance counter have reached the values set with SIM 21-1.

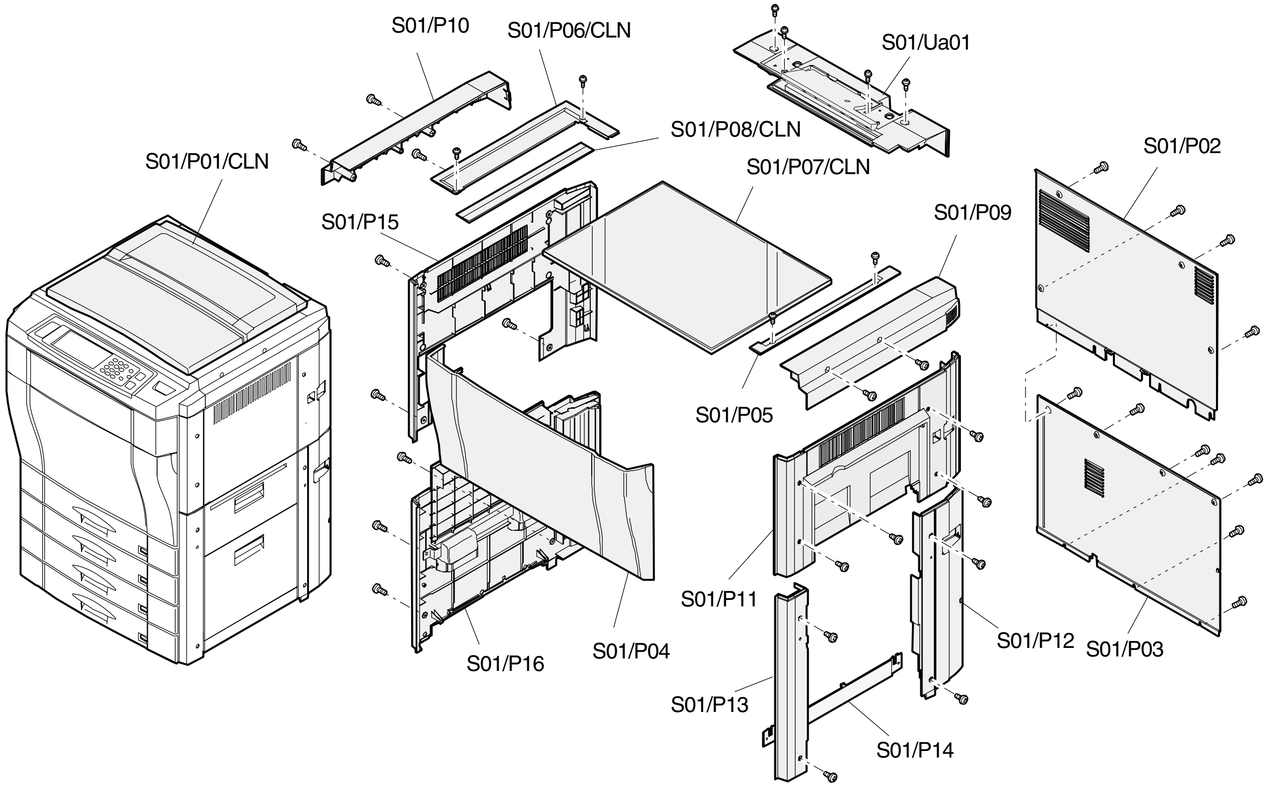
After completion of maintenance, reset this display with SIM 24-4.

2. List

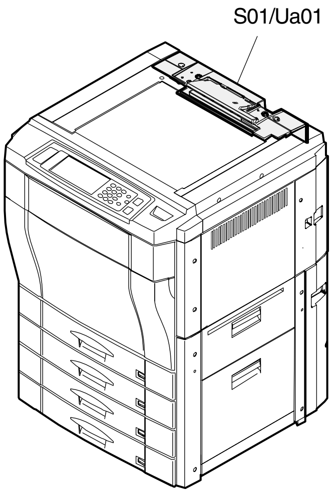
- OIL/GRE (Lubricate, grease); CLN (Cleaning); ADJ (Adjustment); REP (Replacement, installation); CP (Change position); CHK (Check); (Clean, replace, lubricate, grease as necessary); ABL (Disassembly, assembly)

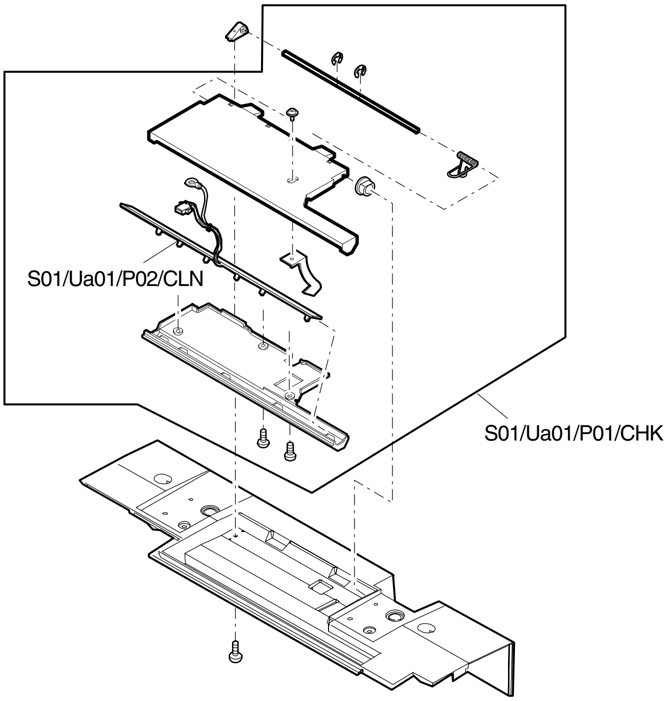
S01 External fitting section

Unit		Part		JOB CODE	Every service call	40K	80K	120K	160K	200K	240K	280K	320K	Remark
U No.	Unit name	P No.	Part name											
		P01	Original cover	ABL										
				CLN	*	*	*	*	*	*	*	*	*	
		P02	Rear cabinet upper	ABL										
		P03	Rear cabinet lower	ABL										
		P04	Front cabinet	ABL										
		P05	Glass holder right	ABL										
		P06	Glass holder left	ABL										
		P07	Table glass	CLN	*	*	*	*	*	*	*	*	*	
				ABL										
		P08	Shading glass	CLN	*	*	*	*	*	*	*	*	*	
				ABL										
		P09	Upper cabinet right	ABL										
		P10	Upper cabinet left	ABL										
		P11	Right cabinet upper	ABL										
		P12	Right cabinet lower rear	ABL										
		P13	Right cabinet lower front	ABL										
		P14	Right cabinet lower front	ABL										
		P15	Left cabinet upper	ABL										
		P16	Left cabinet lower	ABL										


S01/P10
S01/P06/CLN
S01/Ua01
S01/P08/CLN
S01/P01/CLN
S01/P07/CLN
S01/P02
S01/P15
S01/P09
S01/P05
S01/P11
S01/P16
S01/P04
S01/P12
S01/P03
S01/P13
S01/P14

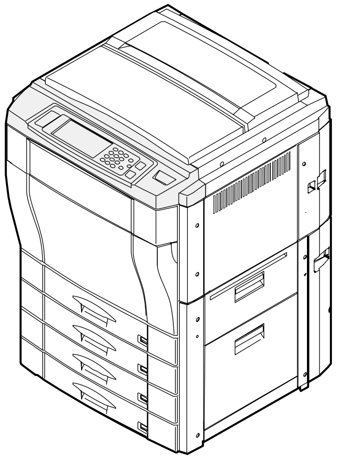
Unit		Part		Job CODE	Every service call	40K	80K	120K	160K	200K	240K	280K	320K	Remark
U No.	Unit name	P No.	Part name											
Ua01	Upper cabinet rear unit			ABL										
		P01	Original size sensor unit (light emitting)	CHK	*		*		*		*		*	
				ABL										
		P02	Original size sensor PWB (Light emitting)	ABL										

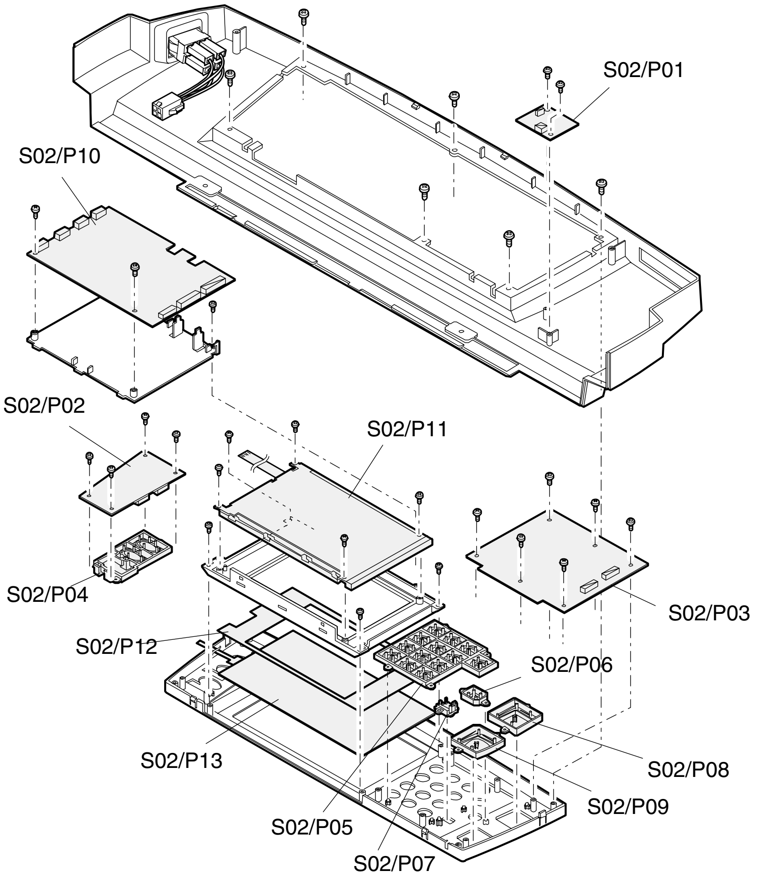




S02 Operation section

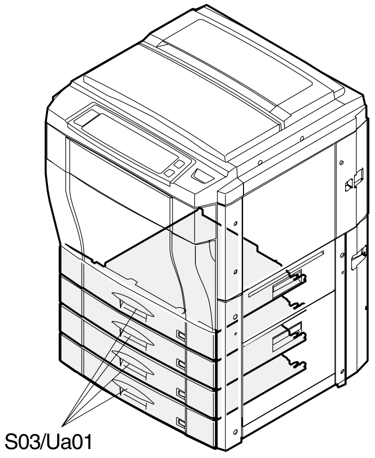
Unit		Part		Job CODE	Every service call	40K	80K	120K	160K	200K	240K	280K	320K	Remark
U No.	Unit name	P No.	Part name											
Ua01	Operation unit			ABL										
		P01	Inverter PWB	ABL										
		P02	OP PWB L	ABL										
		P03	OP PWB R	ABL										
		P04	Select key	ABL										
		P05	10-key	ABL										
		P06	CL key	ABL										
		P07	Interruption key	ABL										
		P08	Copy key	ABL										
		P09	Color select key	ABL										
		P10	OP control PWB	ABL										
		P11	LCD	ABL										
		P12	LCD sheet	ABL										
		P13	Touch panel	ABL										

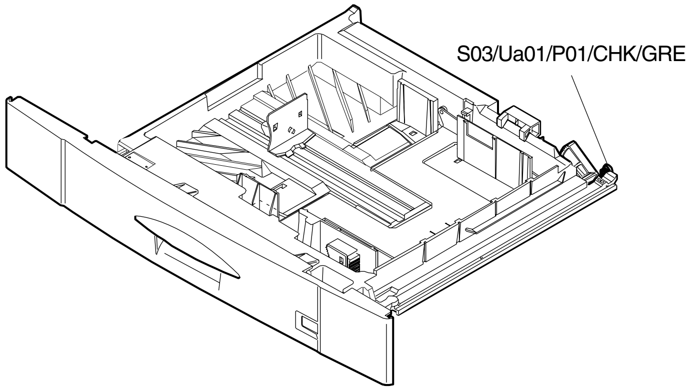



S02/P01
S02/P10
S02/P02
S02/P11
S02/P04
S02/P03
S02/P12
S02/P06
S02/P13
S02/P08
S02/P09
S02/P05
S02/P07

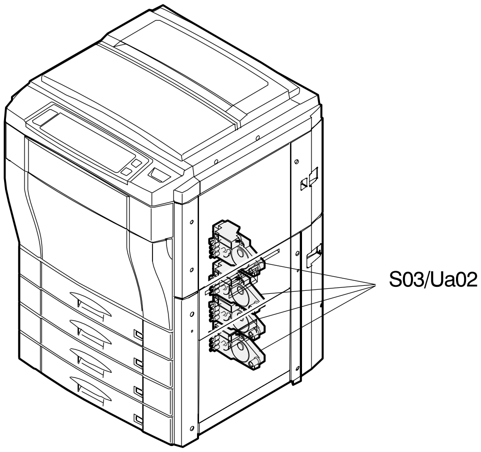
S03 Paper feed, paper transport section

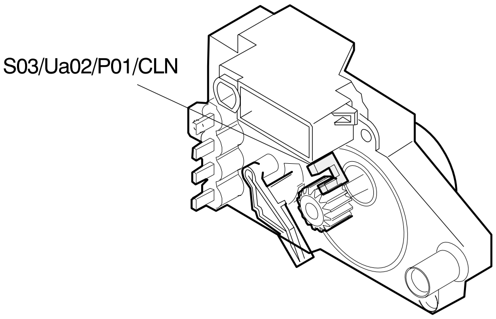
Unit		Part		JOB CODE	Every service call	40K	80K	120K	160K	200K	240K	280K	320K	Remark
U No.	Unit name	P No.	Part name											
Ua01	Paper tray unit			ABL										
		P01	Gear	CHK	*									
				GRE			*		*		*		*	



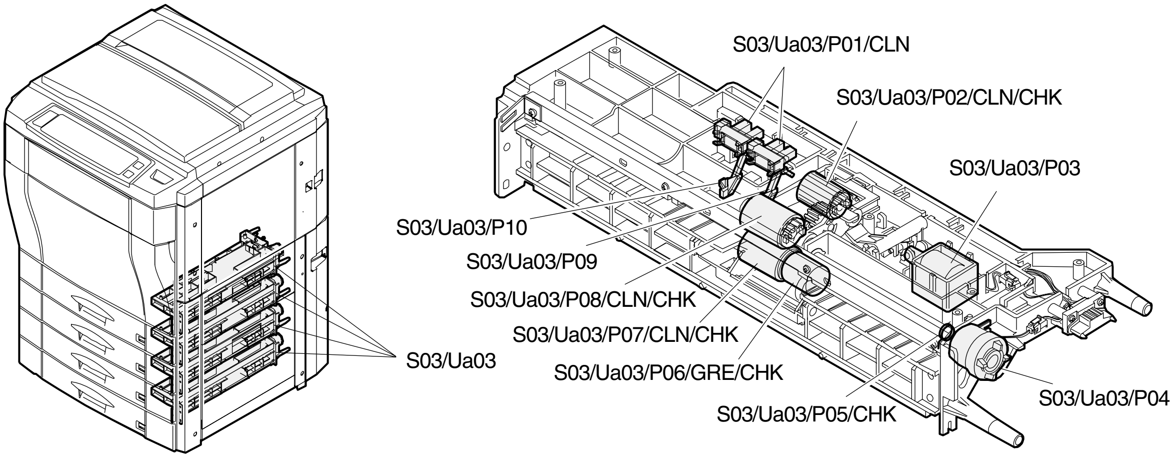

S03/Ua01/P01/CHK/GRE

Unit		Part		JOB CODE	Every service call	40K	80K	120K	160K	200K	240K	280K	320K	Remark
U No.	Unit name	P No.	Part name											
Ua02	Paper tray lift up unit			ABL										
		P01	Lift position sensor	CLN										

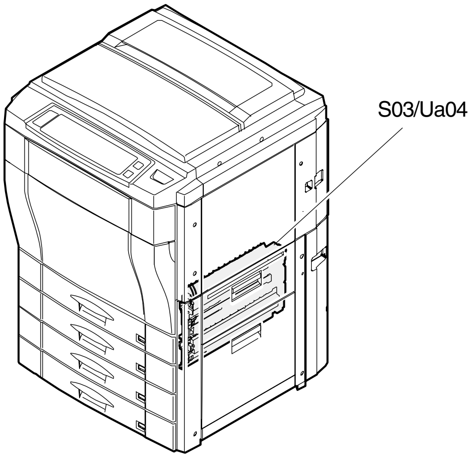


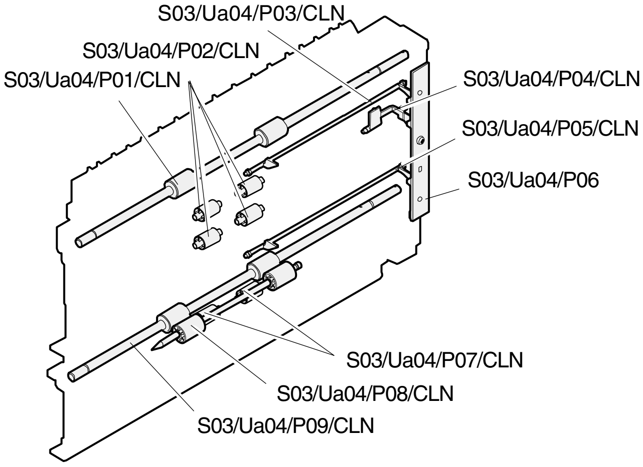


Unit		Part		JOB CODE	Every service call	40K	80K	120K	160K	200K	240K	280K	320K	Remark
U No.	Unit name	P No.	Part name											
Ua03	Paper feed unit			ABL										
		P01	Detector	CLN			*		*		*		*	
				ABL										
		P02	Pick-up roller	CLN	*	*		*		*		*		
				CHK			*		*		*		*	Replace within 2 years after installation of a new part.
		P03	Pick-up solenoid	ABL										
		P04	Paper feed electromagnetic clutch	ABL										
		P05	Earth spring	CHK										
		P06	Torque limiter	GRE					*				*	
				CHK	*		*				*			Replace within 2 years after installation of a new part.
		P07	Separation roller	CLN			*		*		*		*	
				CHK	*	*		*		*		*		Replace within 2 years after installation of a new part.
				ABL										
		P08	Paper feed roller	CLN	*	*		*		*		*		
				CHK			*		*		*		*	Replace within 2 years after installation of a new part.
		P09	Sensor lever	ABL										
		P10	Paper feed lever	ABL										

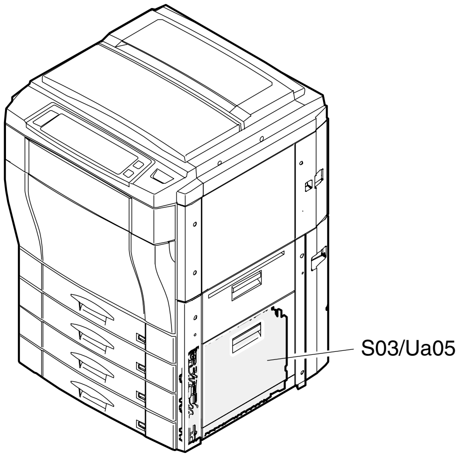

S03/Ua03
S03/Ua03/P01/CLN
S03/Ua03/P02/CLN/CHK
S03/Ua03/P03
S03/Ua03/P10
S03/Ua03/P09
S03/Ua03/P08/CLN/CHK
S03/Ua03/P07/CLN/CHK
S03/Ua03/P06/GRE/CHK
S03/Ua03/P05/CHK
S03/Ua03/P04

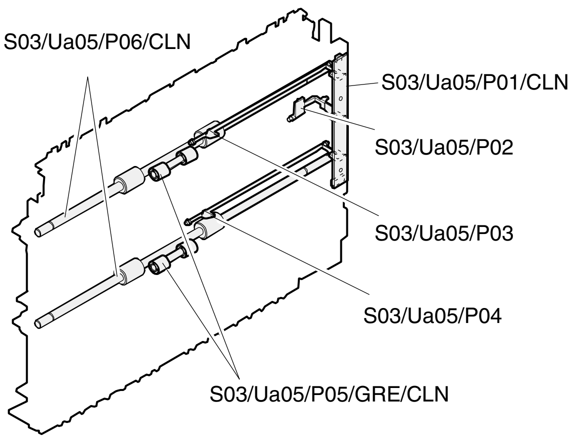
Unit		Part		JOB CODE	Every service call	40K	80K	120K	160K	200K	240K	280K	320K	Remark
U No.	Unit name	P No.	Part name											
Ua04	Transport upper unit			ABL										
		P01	Transport roller	CLN	*	*	*	*	*	*	*	*	*	
				ABL										
		P02	Idle roller	ABL										
				CLN	*	*	*	*	*	*	*	*	*	
		P03	Actuator	ABL										
		P04	Actuator	ABL										
		P05	Actuator	ABL										
		P06	IFD PWB (detector)	CLN			*		*		*		*	
				ABL										
		P07	Idle roller	ABL										
				CLN	*	*	*	*	*	*	*	*	*	
		P08	Idle roller	ABL										
				CLN	*	*	*	*	*	*	*	*	*	
		P09	Transport roller	ABL										
				CLN	*	*	*	*	*	*	*	*	*	



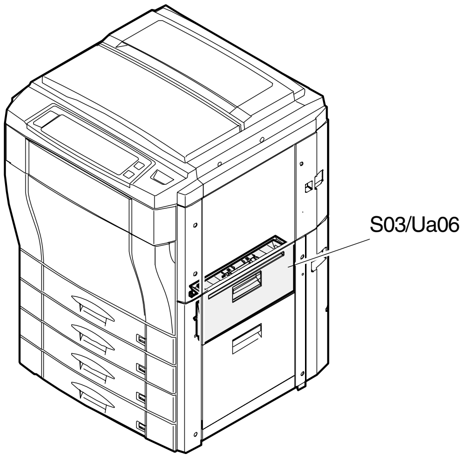

S03/Ua04/P03/CLN
S03/Ua04/P02/CLN
S03/Ua04/P01/CLN
S03/Ua04/P04/CLN
S03/Ua04/P05/CLN
S03/Ua04/P06
S03/Ua04/P07/CLN
S03/Ua04/P08/CLN
S03/Ua04/P09/CLN

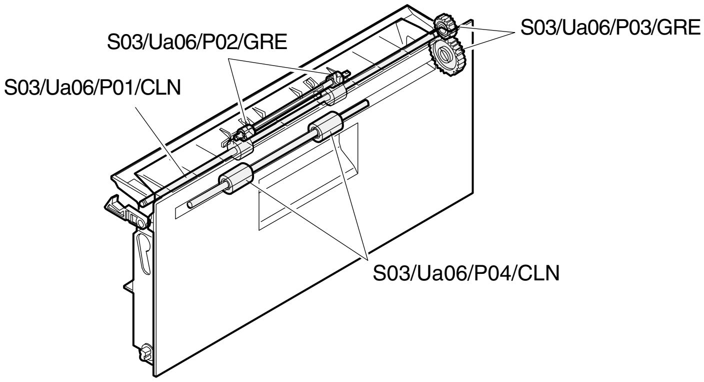
Unit		Part		JOB CODE	Every service call	40K	80K	120K	160K	200K	240K	280K	320K	Remark
U No.	Unit name	P No.	Part name											
Ua05	Transport lower unit			ABL										
		P01	PFD PWB (Detector)	ABL										
				CLN			*		*		*		*	
		P02	Actuator	ABL										
				CLN			*		*		*		*	
		P03	Actuator	ABL										
		P04	Actuator	ABL										
		P05	Idle roller	ABL										
				CLN	*	*	*	*	*	*	*	*	*	
		P06	Transport roller	ABL										
				CLN	*	*	*	*	*	*	*	*	*	



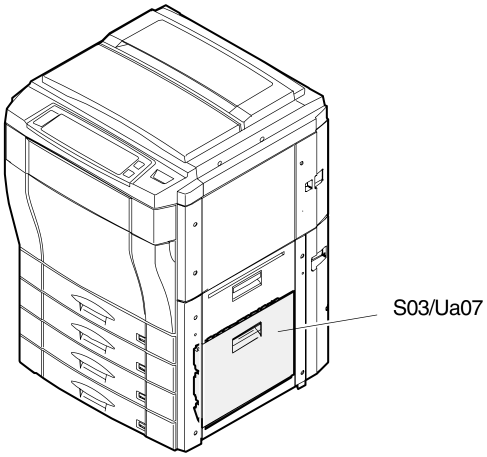

S03/Ua05/P06/CLN
S03/Ua05/P01/CLN
S03/Ua05/P02
S03/Ua05/P03
S03/Ua05/P04
S03/Ua05/P05/GRE/CLN

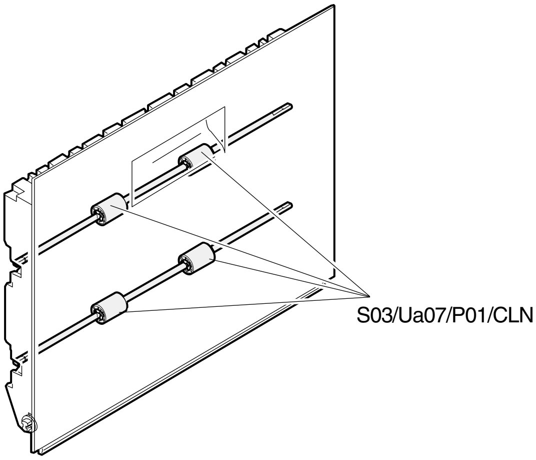
Unit		Part		JOB CODE	Every service call	40K	80K	120K	160K	200K	240K	280K	320K	Remark
U No.	Unit name	P No.	Part name											
Ua06	Right door upper unit			ABL										
		P01	Transport roller	ABL										
				CLN	*	*	*	*	*	*	*	*	*	
		P02	Idle roller	ABL										
				CLN	*	*	*	*	*	*	*	*	*	
		P03	Gear	ABL										
				GRE										
		P04	Idle roller	ABL										
				CLN	*	*	*	*	*	*	*	*	*	



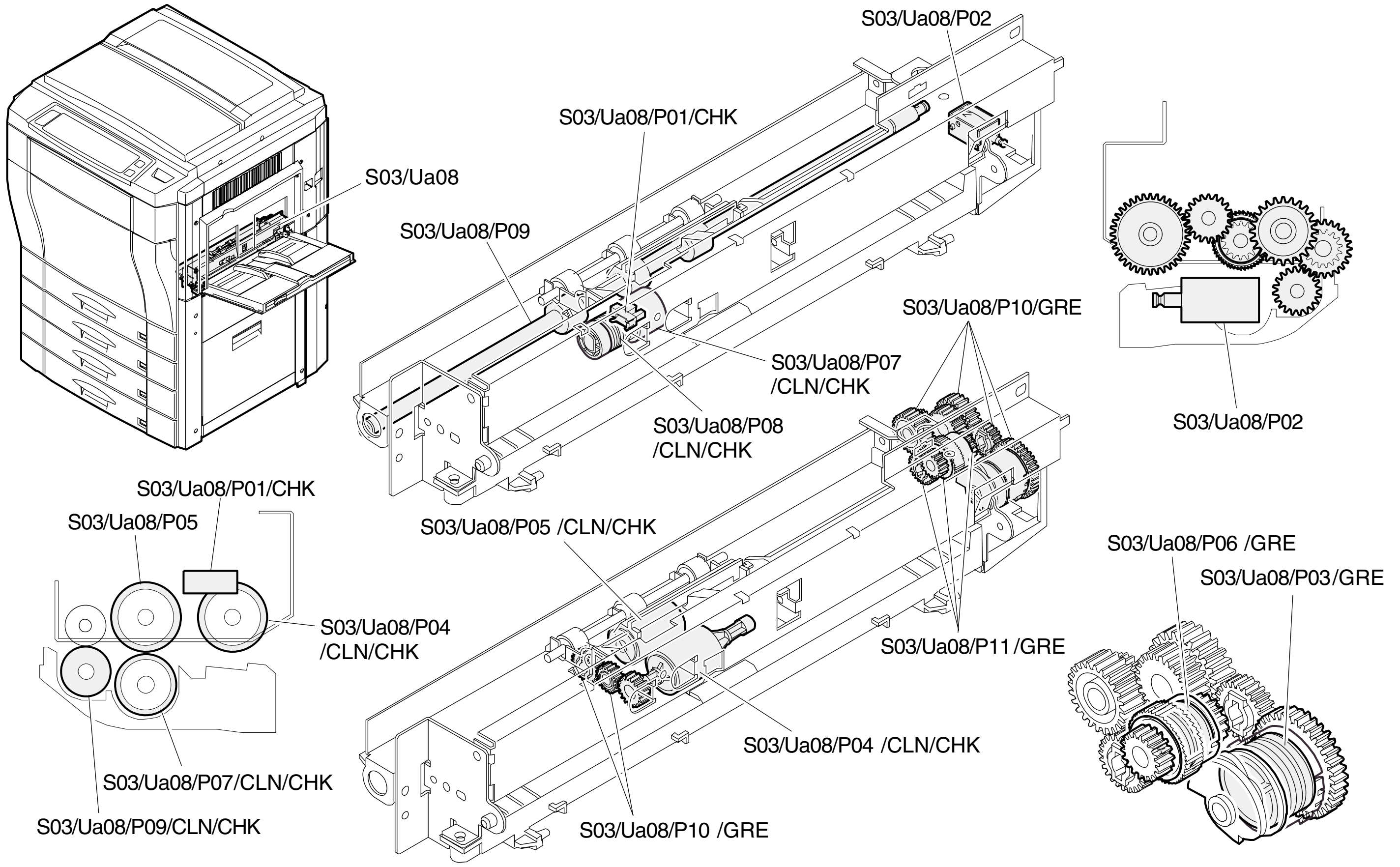

S03/Ua06/P03/GRE
S03/Ua06/P02/GRE
S03/Ua06/P01/CLN
S03/Ua06/P04/CLN

Unit		Part		JOB CODE	Every service call	40K	80K	120K	160K	200K	240K	280K	320K	Remark
U No.	Unit name	P No.	Part name											
Ua07	Right door lower unit			ABL										
		P01	Idle roller	ABL										
				CLN	*	*	*	*	*	*	*	*	*	

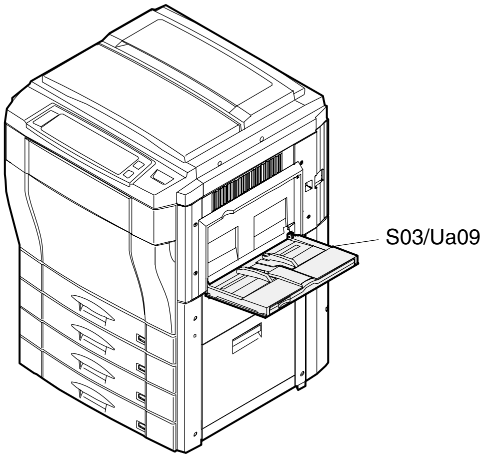


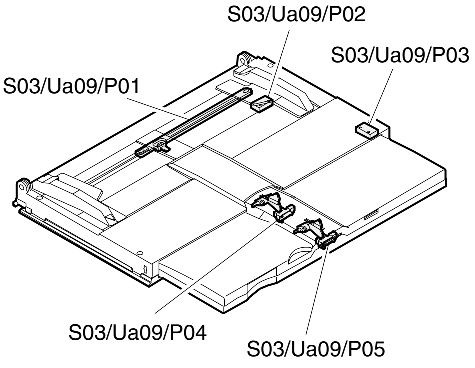


Unit		Part		JOB CODE	Every service call	40K	80K	120K	160K	200K	240K	280K	320K	Remark
U No.	Unit name	P No.	Part name											
Ua08	Manual paper feed unit	P01	Detector	CHK			*		*		*		*	
		P02	Pick-up solenoid	ABL										
		P03	Clutch spring	GRE					*				*	
				CHK	*		*				*			
		P04	Pick-up roller	CLN	*	*		*		*		*		
				CHK			*		*		*		*	Replace within 2 years after installation of a new part.
		P05	Paper feed roller	CLN	*	*		*		*		*		
				CHK			*		*		*		*	Replace within 2 years after installation of a new part.
		P06	Clutch spring	GRE					*				*	
				CHK	*		*				*			
		P07	Separation roller	CLN	*	*		*		*		*		
				CHK			*		*		*		*	Replace within 2 years after installation of a new part.
		P08	Limiter spring	GRE					*				*	
				CHK	*		*				*			Replace within 2 years after installation of a new part.
		P09	Transport roller	CLN	*	*		*		*		*		
				CHK			*		*		*		*	Replace within 2 years after installation of a new part.
		P10	Gear	GRE										


S03/Ua08/P02
S03/Ua08/P01/CHK
S03/Ua08
S03/Ua08/P09
S03/Ua08/P10/GRE
S03/Ua08/P07
/CLN/CHK
S03/Ua08/P08
/CLN/CHK
S03/Ua08/P02
S03/Ua08/P01/CHK
S03/Ua08/P05
S03/Ua08/P05 /CLN/CHK
S03/Ua08/P06 /GRE
S03/Ua08/P03/GRE
S03/Ua08/P04
/CLN/CHK
S03/Ua08/P11/GRE
S03/Ua08/P04 /CLN/CHK
S03/Ua08/P07/CLN/CHK
S03/Ua08/P09/CLN/CHK
S03/Ua08/P10 /GRE

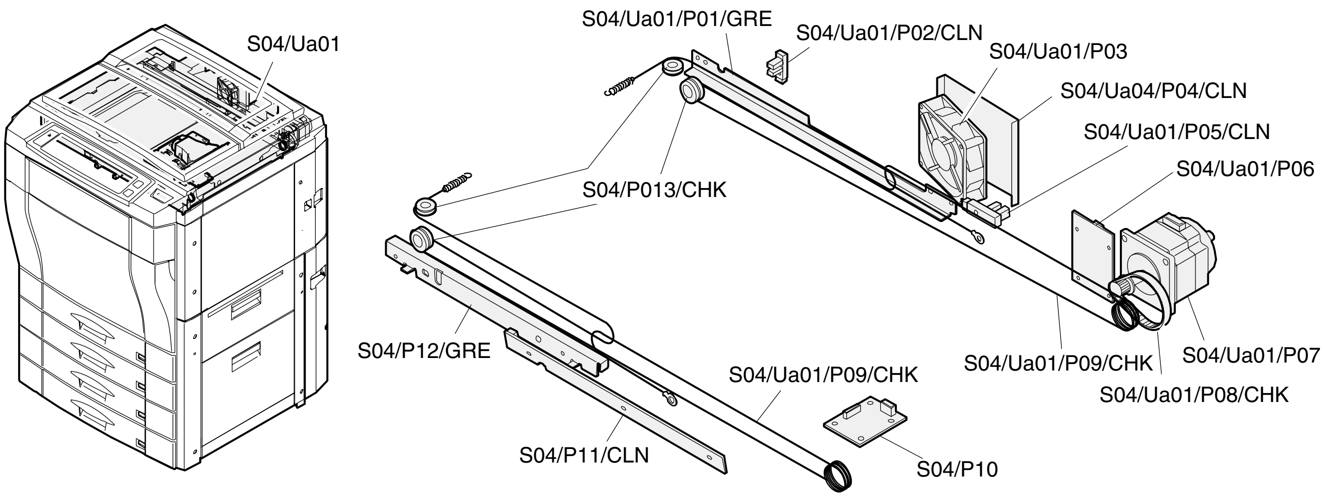
Unit		Part		JOB CODE	Every service call	40K	80K	120K	160K	200K	240K	280K	320K	Remark
U No.	Unit name	P No.	Part name											
Ua09	Manual paper feed tray	P01	Paper width sensor	ABL										
		P02	Tray SW-S	ABL										
		P03	Tray SW-L	ABL										
		P04	Paper length detector 1	ABL										
		P05	Paper length detector 2	ABL										



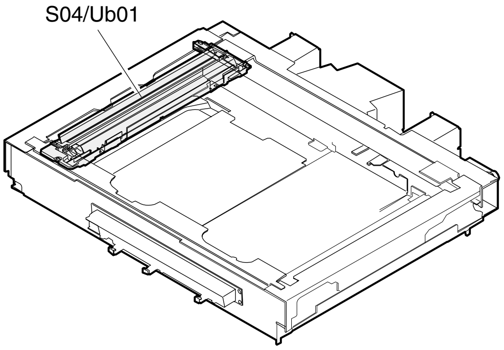

S03/Ua09/P02
S03/Ua09/P03
S03/Ua09/P01
S03/Ua09/P04
S03/Ua09/P05

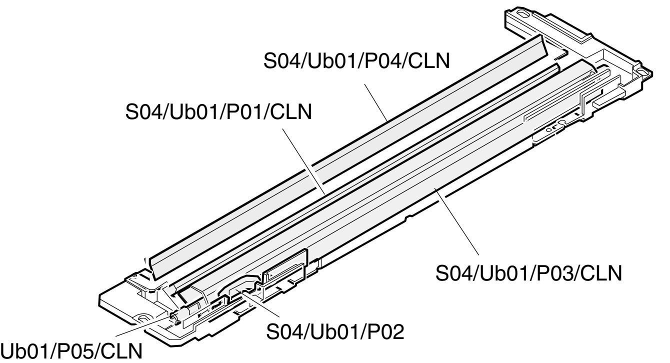
S04 Scanner (reading) section

Unit		Part		JOB CODE	Every service call	40K	80K	120K	160K	200K	240K	280K	320K	Remark
U No.	Unit name	P No.	Part name											
Ua01	Scanner (reading) unit			ABL										
		P01	Scanner rail R	GRE		*	*	*	*	*	*	*	*	
		P02	Scanner home position sensor	CLN			*		*		*		*	
		P03	Fan motor	ABL										
		P04	Filter	CLN		*	*	*	*	*	*	*	*	
		P05	OC cover open sensor	CLN	*	*	*	*	*	*	*	*	*	
		P06	Scanner motor PWB	ABL										
		P07	Scanner motor	ABL										
		P08	MB drive belt	CHK		*	*	*	*	*	*	*	*	
				ABL										
		P09	MB wire	CHK		*	*	*	*	*	*	*	*	
				ABL										
		P10	CCD power PWB	ABL										
		P11	Original size sensor PWB	CLN		*	*	*	*	*	*	*	*	
		P12	Scanner rail F	GRE		*	*	*	*	*	*	*	*	
		P13	MB wire pulley	CHK		*	*	*	*	*	*	*	*	

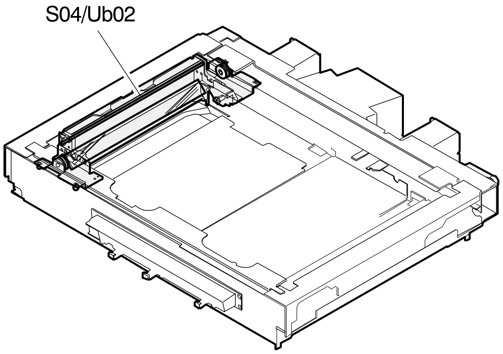

S04/Ua01
S04/Ua01/P01/GRE
S04/Ua01/P02/CLN
S04/Ua01/P03
S04/Ua04/P04/CLN
S04/Ua01/P05/CLN
S04/Ua01/P06
S04/P013/CHK
S04/P12/GRE
S04/Ua01/P09/CHK
S04/Ua01/P09/CHK
S04/Ua01/P07
S04/Ua01/P08/CHK
S04/P11/CLN
S04/P10

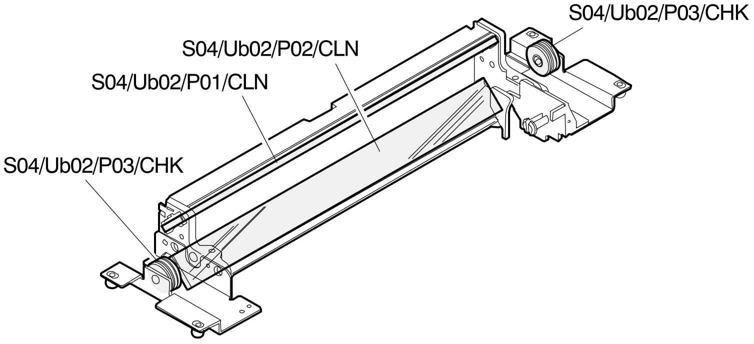
Unit		Part		JOB CODE	Every service call	40K	80K	120K	160K	200K	240K	280K	320K	Remark
U No.	Unit name	P No.	Part name											
Ub01	Scanner unit A			ABL										
		P01	No. 1 mirror	CLN	*	*	*	*	*	*	*	*	*	
		P02	Thermal fuse unit	ABL										
		P03	Reflector	CLN	*	*	*	*	*	*	*	*	*	
		P04	Sub reflector	CLN	*	*	*	*	*	*	*	*	*	
		P05	Scanner lamp	CLN	*	*	*	*	*	*	*	*	*	
				ABL										



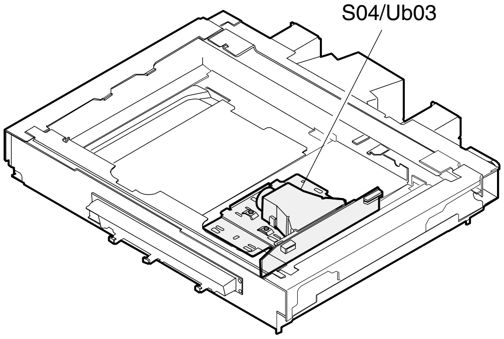

S04/Ub01/P04/CLN
S04/Ub01/P01/CLN
S04/Ub01/P03/CLN
S04/Ub01/P02
S04/Ub01/P05/CLN

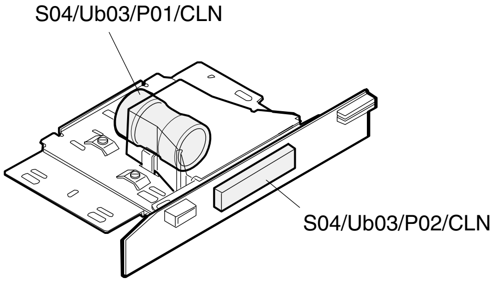
Unit		Part		JOB CODE	Every service call	40K	80K	120K	160K	200K	240K	280K	320K	Remark
U No.	Unit name	P No.	Part name											
Ub02	Scanner unit B			ABL										
		P01	No. 2 mirror	CLN	*	*	*	*	*	*	*	*	*	
		P02	No. 3 mirror	CLN	*	*	*	*	*	*	*	*	*	
		P03	Wire pulley	CHK		*	*	*	*	*	*	*	*	




S04/Ub02/P03/CHK
S04/Ub02/P02/CLN
S04/Ub02/P01/CLN
S04/Ub02/P03/CHK

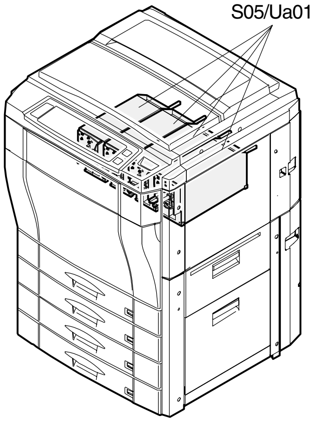
Unit		Part		JOB CODE	Every service call	40K	80K	120K	160K	200K	240K	280K	320K	Remark
U No.	Unit name	P No.	Part name											
Ub03	CCD unit			ABL										
		P01	CCD lens	CLN	*	*	*	*	*	*	*	*	*	
		P02	CCD unit	CLN	*	*	*	*	*	*	*	*	*	

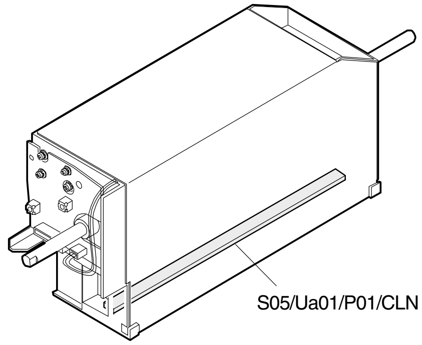



S04/Ub03/P01/CLN
S04/Ub03/P02/CLN

S05 Scanner (writing) section

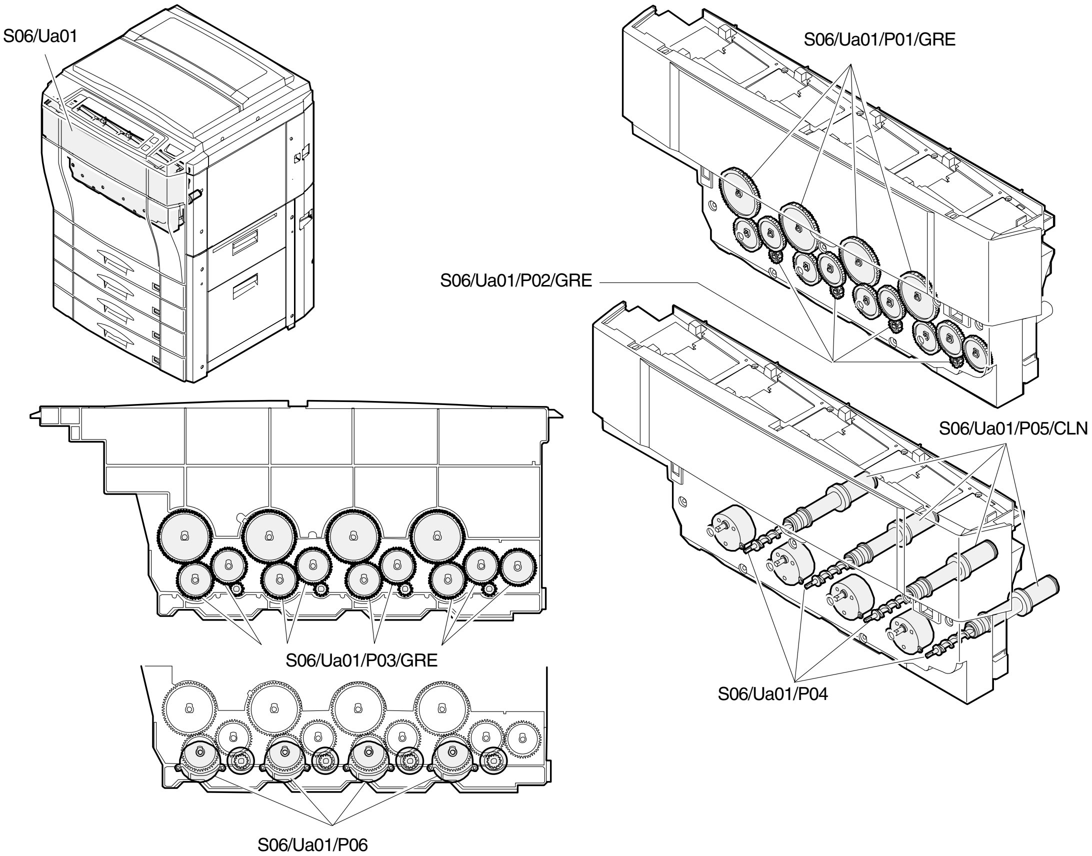
Unit		Part		JOB CODE	Every service call	40K	80K	120K	160K	200K	240K	280K	320K	Remark
U No.	Unit name	P No.	Part name											
Ua01	Scanner (writing) unit			ABL										
		P01	Filter	CLN	*	*	*	*	*	*	*	*	*	



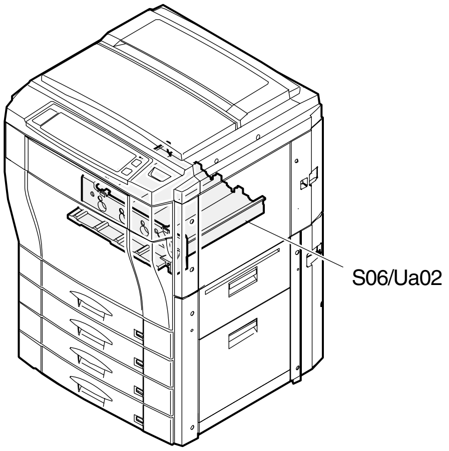

S05/Ua01/P01/CLN

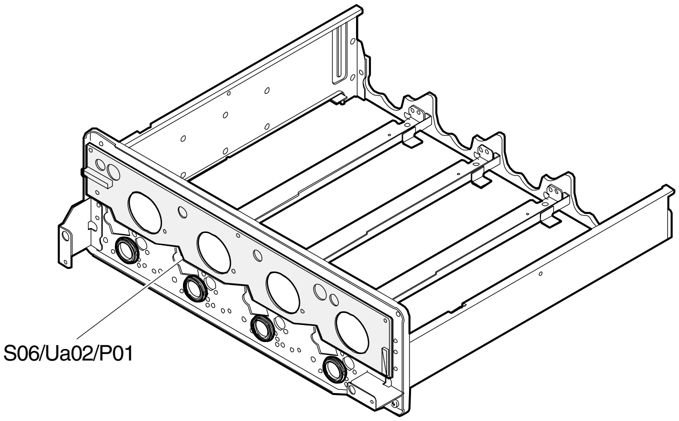
S06 Image process section

Unit		Part		JOB CODE	Every service call	40K	80K	120K	160K	200K	240K	280K	320K	Remark
U No.	Unit name	P No.	Part name											
Ua01	Toner hopper unit			ABL										
		P01	Gear	GRE										
		P02	Gear	GRE										
		P03	Gear	GRE										
		P04	Toner transport screw	ABL										
		P05	Pipe shutter	CLN	*	*	*	*	*	*	*	*	*	
		P06	Toner supply motor	ABL										

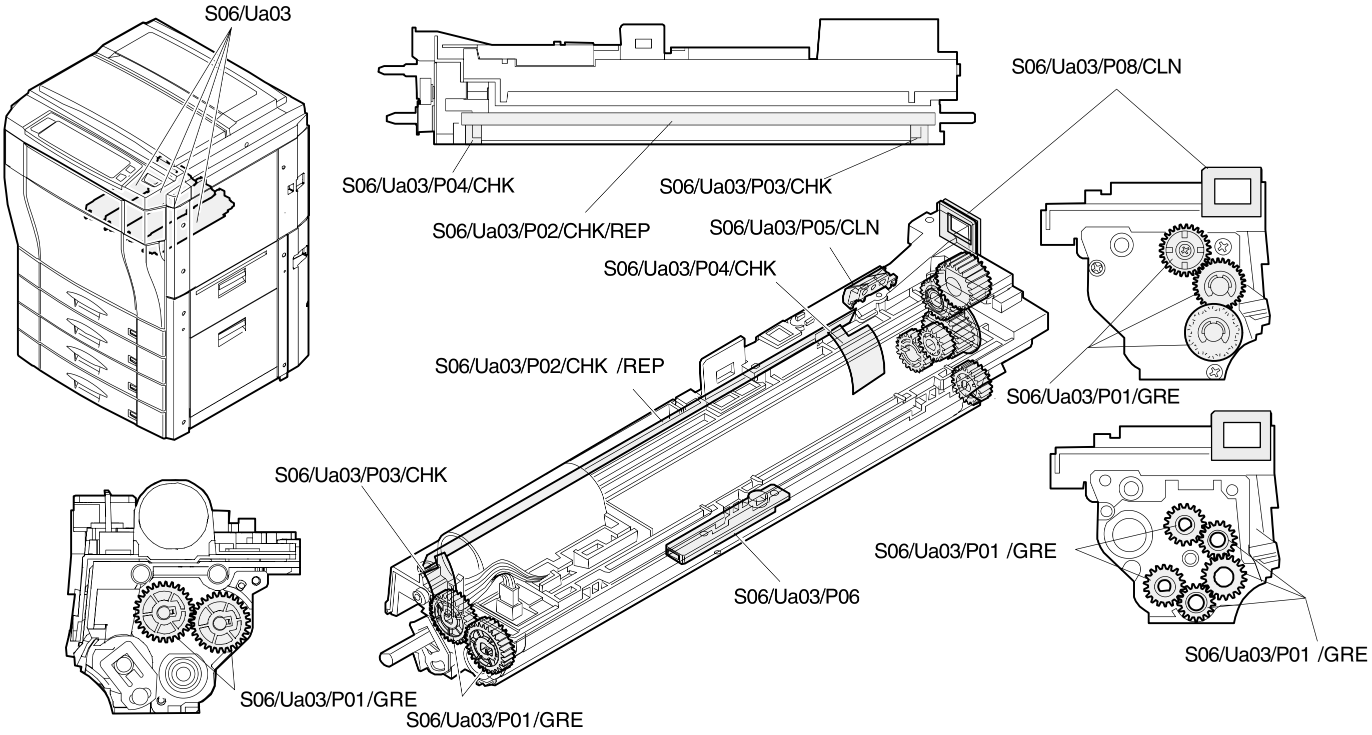

S06/Ua01
S06/Ua01/P01/GRE
S06/Ua01/P02/GRE
S06/Ua01/P05/CLN
S06/Ua01/P03/GRE
S06/Ua01/P04
S06/Ua01/P06

Unit		Part		JOB CODE	Every service call	40K	80K	120K	160K	200K	240K	280K	320K	Remark
U No.	Unit name	P No.	Part name											
Ua02	Process frame unit													
		P01	Process control PWB	ABL										

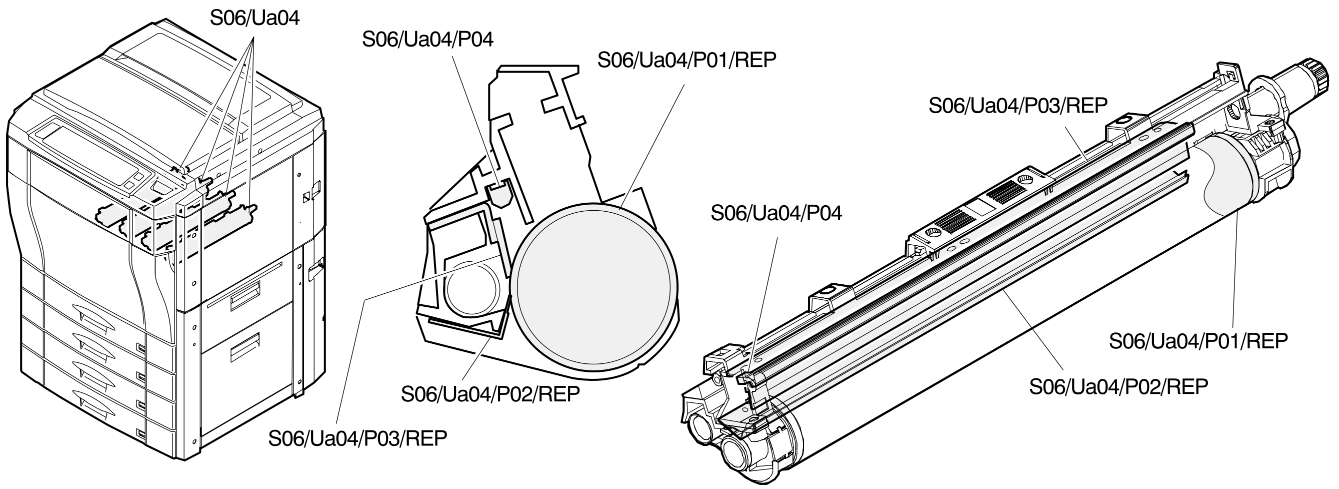



S06/Ua02/P01

Unit		Part		JOB CODE	Every service call	40K	80K	120K	160K	200K	240K	280K	320K	Remark
U No.	Unit name	P No.	Part name											
Ua03	DV unit													
		P01	Gear	GRE										
		P02	DV seal	REP			*		*		*		*	
				CHK		*		*		*		*		
		P03	DV side seal F	CHK		*	*	*	*	*	*	*	*	
		P04	DV side seal R	CHK		*	*	*	*	*	*	*	*	
		P05	Drum mark sensor	CLN		*	*	*	*	*	*	*	*	
		P06	ATC sensor	ABL										
		P07	Developer	REP		*	*	*	*	*	*	*	*	
		P08	Duct	CLN	*	*	*	*	*	*	*	*	*	


S06/Ua03
S06/Ua03/P08/CLN
S06/Ua03/P04/CHK
S06/Ua03/P03/CHK
S06/Ua03/P02/CHK/REP
S06/Ua03/P05/CLN
S06/Ua03/P04/CHK
S06/Ua03/P02/CHK /REP
S06/Ua03/P01/GRE
S06/Ua03/P03/CHK
S06/Ua03/P01 /GRE
S06/Ua03/P06
S06/Ua03/P01 /GRE
S06/Ua03/P01/GRE
S06/Ua03/P01/GRE

Unit		Part		JOB CODE	Every service call	40K	80K	120K	160K	200K	240K	280K	320K	Remark
U No.	Unit name	P No.	Part name											
Ua04	OPC drum unit			ABL										
		P01	OPC drum	REP		*	*	*	*	*	*	*	*	After replacement, reset the OPC drum correction counter with SIM 24-7.
				ABL										
		P02	Toner reception seal	REP			*		*		*		*	
				CHK		*		*		*		*		
		P03	Cleaning blade	REP		*	*	*	*	*	*	*	*	Replace within 2 years after installation of a new part.
		P04	DL PWB unit	CLN	*	*	*	*	*	*	*	*	*	


S06/Ua04
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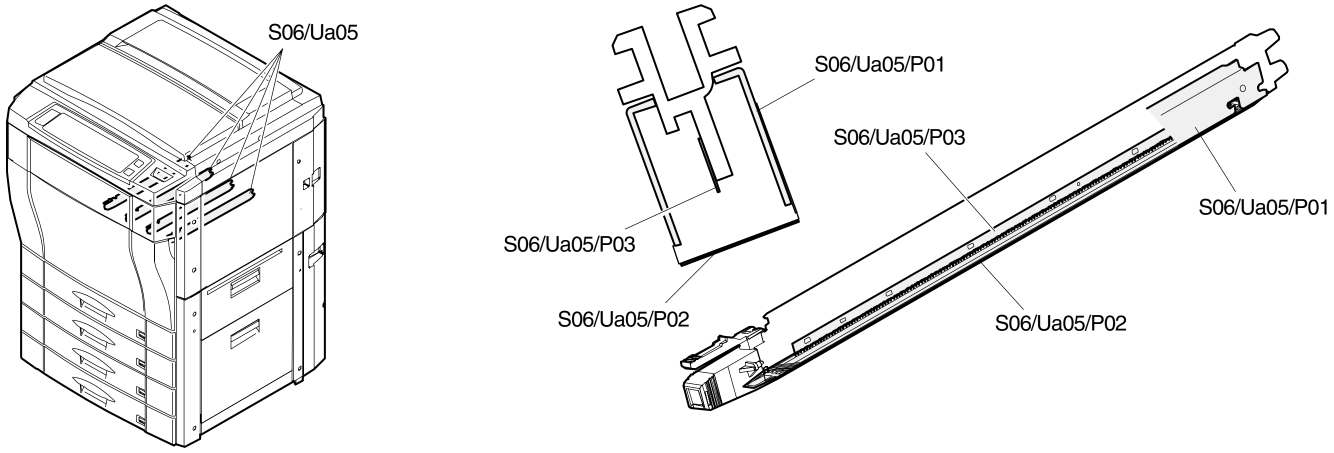
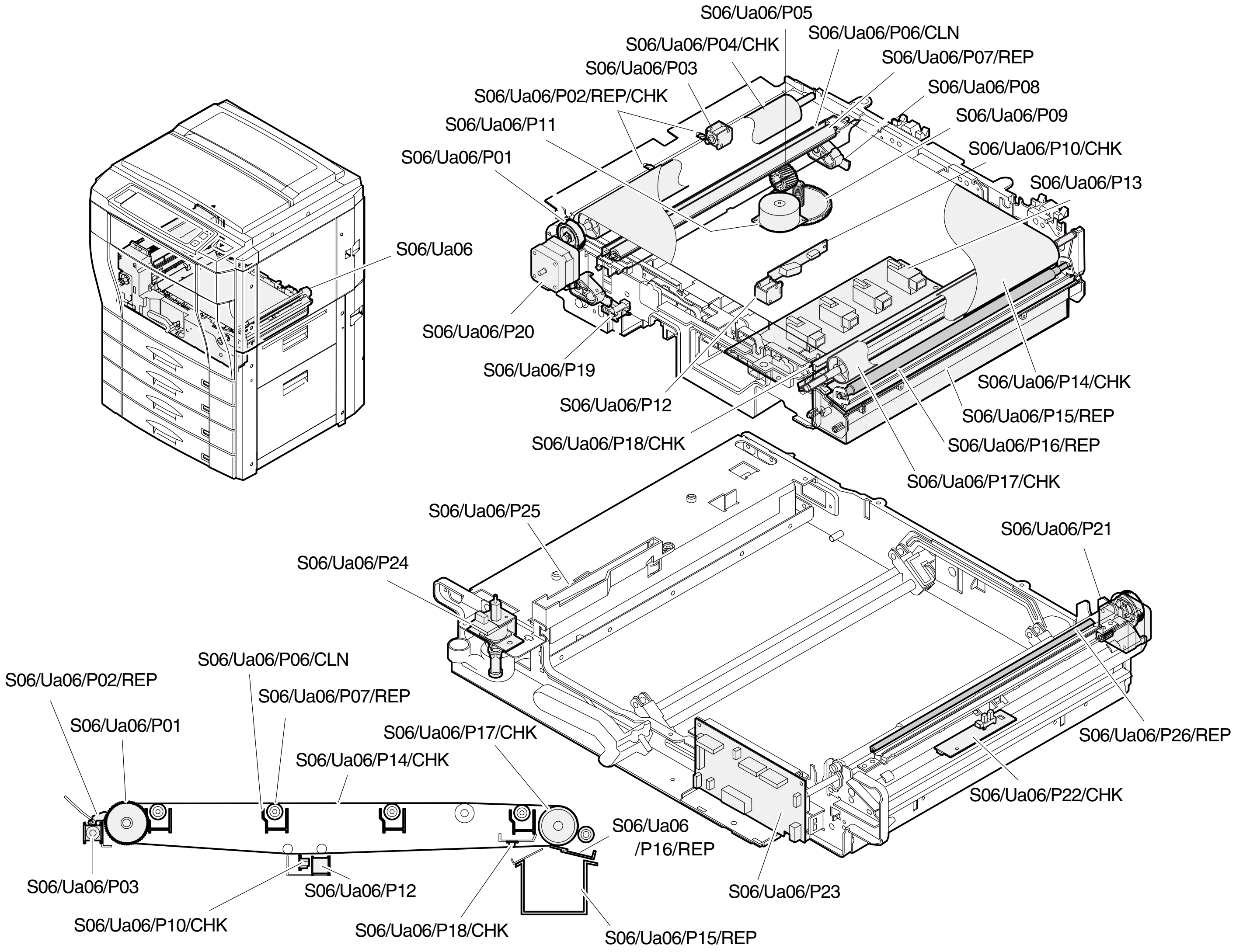
S06/Ua04/P01/REP
S06/Ua04/P03/REP
S06/Ua04/P04
S06/Ua04/P01/REP
S06/Ua04/P02/REP
S06/Ua04/P02/REP
S06/Ua04/P03/REP

Unit		Part		JOB CODE	Every service call	40K	80K	120K	160K	200K	240K	280K	320K	Remark
U No.	Unit name	P No.	Part name											
Ua05	MC unit			CHK	*									
				REP		*	*	*	*	*	*	*	*	
		P01	MC case	CLN	*									
		P02	MC grid	CLN	*									
		P03	Charging plate	CLN	*									


S06/Ua05
S06/Ua05/P01
S06/Ua05/P03
S06/Ua05/P01
S06/Ua05/P03
S06/Ua05/P02
S06/Ua05/P02

Unit		Part		JOB CODE	Every service call	40K	80K	120K	160K	200K	240K	280K	320K	Remark
U No.	Unit name	P No.	Part name											
Ua06	Transfer unit			CHK					*				*	When replacing the unit
		P01	Transfer belt drive gear	GRE										
		P02	Transfer separation pawl	REP					*				*	In the case of the AR-C160/ C270, it is installed only in the model for Japan.
				CHK		*	*	*		*	*	*		
		P03	Separation pawl solenoid	ABL										
		P04	Belt drive roller	CHK		*	*	*	*	*	*	*	*	
		P05	Gear	GRE										
		P06	Transfer discharge sheet	CLN					*				*	
				CHK		*	*	*		*	*	*		
		P07	Transfer roller	REP					*				*	In the case of AR-C160/C270, replace it every 160K.
				CHK		*	*	*		*	*	*		
		P08	Lift cam	GRE										
		P09	Idle gear	GRE										
		P10	Image density sensor	CHK		*	*	*	*	*	*	*	*	
		P11	Transfer belt lift motor	ABL										
		P12	Image density sensor solenoid	ABL										
		P13	High voltage power PWB (TC)	ABL										
		P14	Transfer belt	CHK		*	*	*		*	*	*		
				REP					*				*	
		P15	Waste toner tank	REP	*	*	*	*	*	*	*	*	*	After replacement, reset the waste toner counter with SIM 24-8.
		P16	Transfer belt cleaning blade	REP					*				*	
				CHK		*	*	*		*	*	*		Replace within 80K or 2 years after installation of a new part.
		P17	Transfer belt idle roller	CHK		*	*	*	*	*	*	*	*	
		P18	Transfer belt cleaner	CHK		*	*	*	*	*	*	*	*	
		P19	Transfer unit sensor	CHK		*	*	*	*	*	*	*	*	
		P20	Belt drive motor	ABL										
		P21	RR motor	ABL										
		P22	Humidity sensor	CHK		*	*	*	*	*	*	*	*	
		P23	PCU sub PWB	ABL										
		P24	Oil pump	CHK										
		P25	Oil filter unit	REP		*	*	*	*	*	*	*	*	
		P26	Resist roller cleaner	REP		*	*	*	*	*	*	*	*	AR-C160



S06/Ua06/P05
S06/Ua06/P06/CLN
S06/Ua06/P04/CHK
S06/Ua06/P07/REP
S06/Ua06/P03
S06/Ua06/P08
S06/Ua06/P02/REP/CHK
S06/Ua06/P09
S06/Ua06/P11
S06/Ua06/P10/CHK
S06/Ua06/P01
S06/Ua06/P13
S06/Ua06
S06/Ua06/P20
S06/Ua06/P19
S06/Ua06/P14/CHK
S06/Ua06/P12
S06/Ua06/P15/REP
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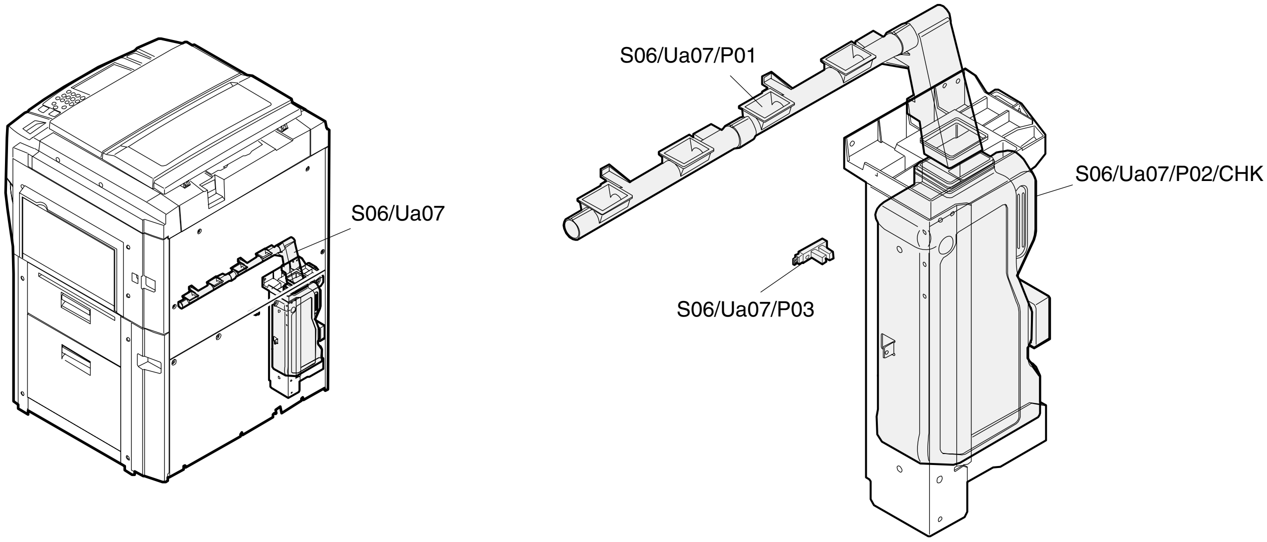
S06/Ua06
/P16/REP
S06/Ua06/P03
S06/Ua06/P12
S06/Ua06/P23
S06/Ua06/P10/CHK
S06/Ua06/P18/CHK
S06/Ua06/P15/REP

Unit		Part		JOB CODE	Every service call	40K	80K	120K	160K	200K	240K	280K	320K	Remark
U No.	Unit name	P No.	Part name											
Ua07	Waste toner unit													
		P01	Waste toner transport unit	ABL										
		P02	Waste toner bottle	CHK	*									User replacement
		P03	Waste toner full sensor	ABL										

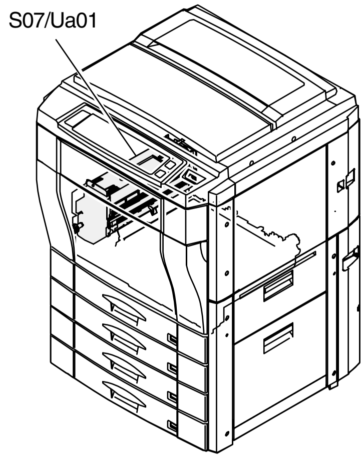


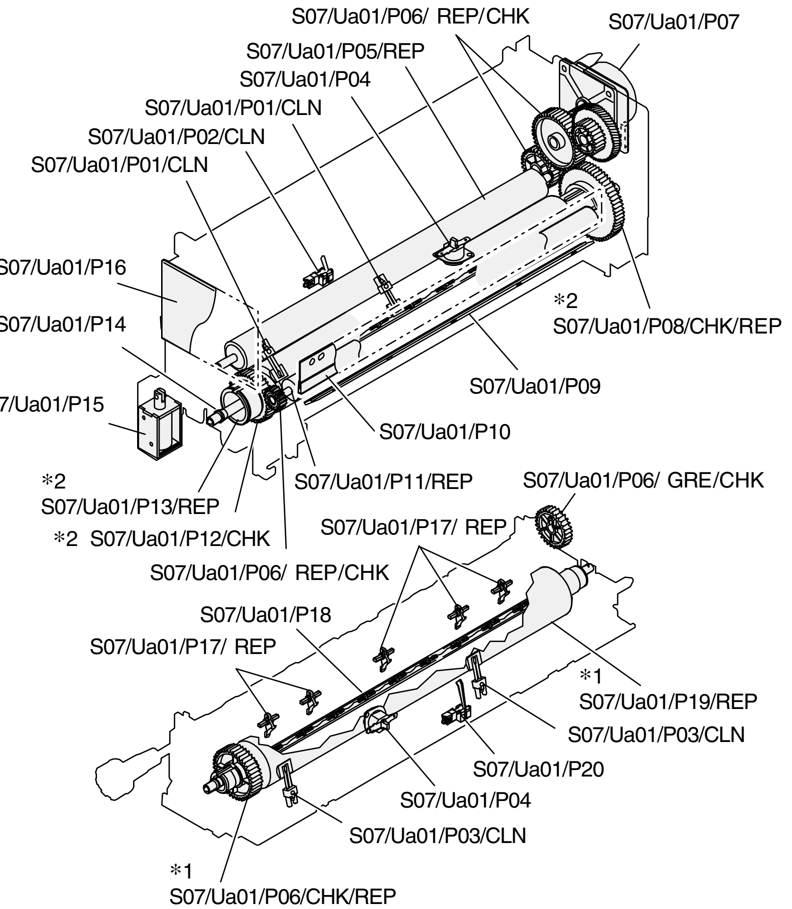
S06/Ua07/P01
S06/Ua07/P02/CHK
S06/Ua07
S06/Ua07/P03

S07 Fusing/paper exit sections

Unit		Part		JOB CODE	Every service call	40K	80K	120K	160K	200K	240K	280K	320K	Remark
U No.	Unit name	P No.	Part name											
Ua01	Fusing unit			CHK		*	*	*	*	*	*	*	*	When replacing the unit
		P01	Thermistor (Upper) 2 pcs	CHK		*	*	*	*	*	*	*	*	
		P02	Duplex paper exit detector	CLN			*		*		*		*	
		P03	Thermistor (Lower) 2 pcs.	CHK		*	*	*	*	*	*	*	*	
		P04	Thermostat (Upper/Lower)	ABL										
		P05	Upper cleaning roller	REP		*	*	*	*	*	*	*	*	Replace within 40K or 2 years after installation of a new part.
		P06	Gear *1	REP					*				*	
				CHK		*	*	*	*	*	*	*	*	
		P07	Fusing drive motor	ABL										
		P08	Upper heat roller gear R *2	REP		*	*	*	*	*	*	*	*	
				CHK										
				ABL										
		P09	Oil applying felt	REP		*	*	*	*	*	*	*	*	
				ABL										
		P10	Oil applying blade	REP		*	*	*	*	*	*	*	*	Replace within 40K or 2 years after installation of a new part.
				ABL										
		P11	Oil applying roller	REP		*	*	*	*	*	*	*	*	Replace within 40K or 2 years after installation of a new part.
				ABL										
		P12	Upper heat roller gear F *2	CHK										
				REP		*	*	*	*	*	*	*	*	
				ABL										
		P13	Upper heat roller *2	REP		*	*	*	*	*	*	*	*	Replace within 40K or 2 years after installation of a new part.
				ABL										
		P14	Upper heater lamp	ABL										
		P15	Duplex gate solenoid	ABL										
		P16	Heater lamp control PWB (AC sub PWB)	ABL										
		P17	Lower separation pawl	REP		*	*	*	*	*	*	*		
		P18	Lower heater lamp	ABL										
		P19	Lower heat roller *1	REP		*	*	*	*	*	*	*	*	Replace within 40K or 2 years after installation of a new part.
				ABL										
		P20	Paper entry detector	CLN			*		*		*		*	
		P21	Oil pump/Filter	CHK		*	*	*	*	*	*	*	*	
		P22	Oil	CHK		*	*	*	*	*	*	*	*	
		P23	Oil sensor	ABL										

*1, *2: In the case of the AR-C160/C270, replacement is made by the whole unit of the heat roller unit.




S07/Ua01/P06/ REP/CHK
S07/Ua01/P07
S07/Ua01/P05/REP
S07/Ua01/P04
S07/Ua01/P01/CLN
S07/Ua01/P02/CLN
S07/Ua01/P01/CLN
S07/Ua01/P16
*2
S07/Ua01/P08/CHK/REP
S07/Ua01/P14
S07/Ua01/P09
S07/Ua01/P15
S07/Ua01/P10
*2
S07/Ua01/P13/REP
S07/Ua01/P11/REP
S07/Ua01/P06/ GRE/CHK
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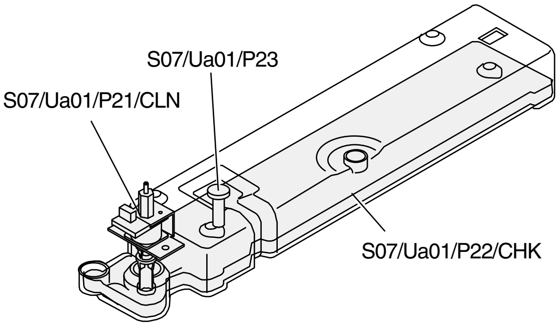
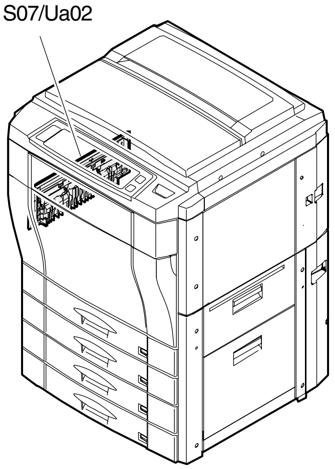
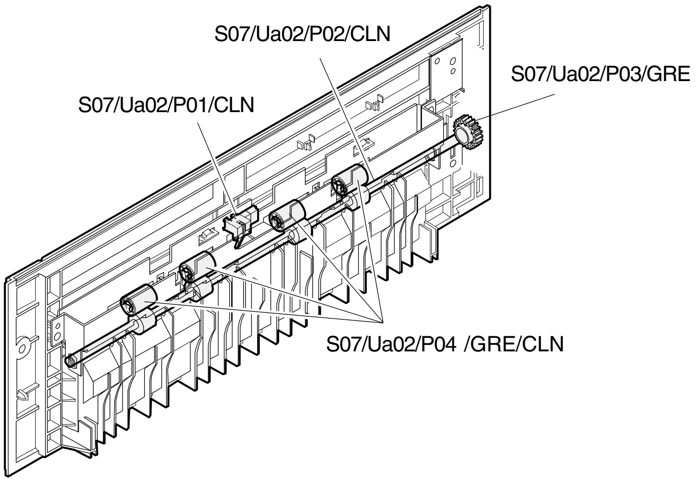
S07/Ua01/P18
S07/Ua01/P17/ REP
*1
S07/Ua01/P19/REP
S07/Ua01/P03/CLN
S07/Ua01/P20
S07/Ua01/P04
S07/Ua01/P03/CLN
*1
S07/Ua01/P06/CHK/REP


S07/Ua01/P23
S07/Ua01/P21/CLN
S07/Ua01/P22/CHK

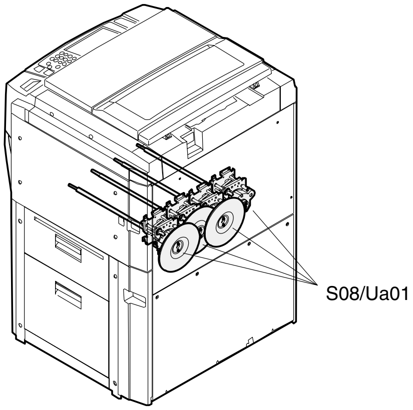
Unit		Part		JOB CODE	Every service call	40K	80K	120K	160K	200K	240K	280K	320K	Remark
U No.	Unit name	P No.	Part name											
Ua02	Paper exit unit			ABL										
		P01	Paper exit detector	CLN			*		*		*		*	
		P02	Paper exit roller	CLN	*	*	*	*	*	*	*	*	*	
		P03	Gear	GRE										
		P04	Paper exit idle roller	GRE										Inside
				CLN		*	*	*	*	*	*	*	*	

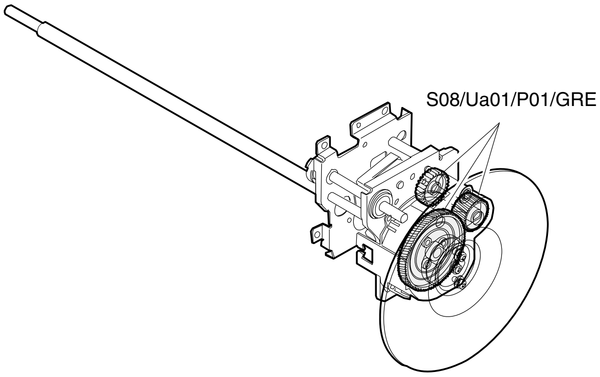



S07/Ua02/P02/CLN
S07/Ua02/P03/GRE
S07/Ua02/P01/CLN
S07/Ua02/P04 /GRE/CLN

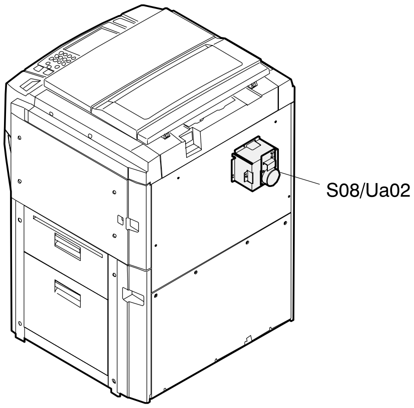
S08 Drive section

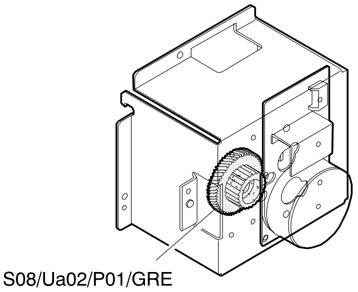
Unit		Part		JOB CODE	Every service call	40K	80K	120K	160K	200K	240K	280K	320K	Remark
U No.	Unit name	P No.	Part name											
Ua01	OPC drum drive unit			ABL										
		P01	Gear	GRE	*	*	*	*	*	*	*	*	*	



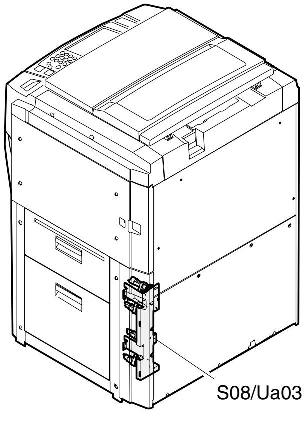

S08/Ua01/P01/GRE

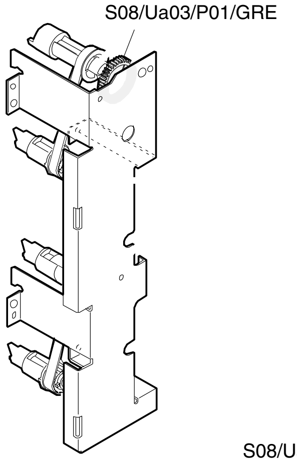
Unit		Part		JOB CODE	Every service call	40K	80K	120K	160K	200K	240K	280K	320K	Remark
U No.	Unit name	P No.	Part name											
Ua02	Developer drive unit			ABL										
		P01	Gear	GRE		*	*	*	*	*	*	*	*	

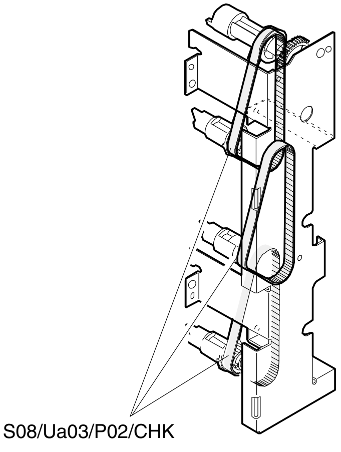



S08/Ua02/P01/GRE

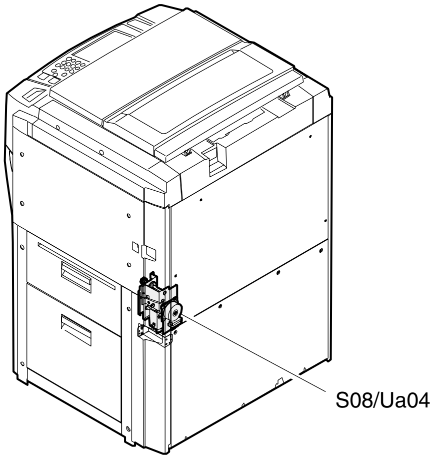
Unit		Part		JOB CODE	Every service call	40K	80K	120K	160K	200K	240K	280K	320K	Remark
U No.	Unit name	P No.	Part name											
Ua03	Paper feed drive unit			ABL										
		P01	Gear	GRE	*	*	*	*	*	*	*	*	*	
		P02	Belt	CHK	*	*	*	*	*	*	*	*	*	

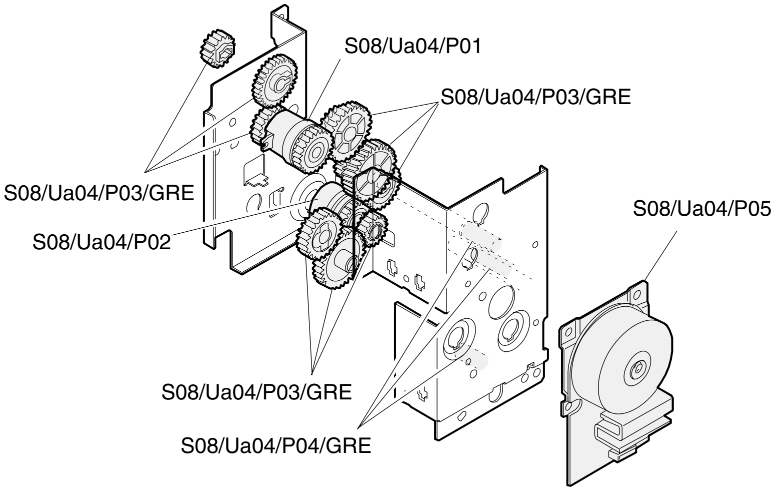



S08/Ua03/P01/GRE

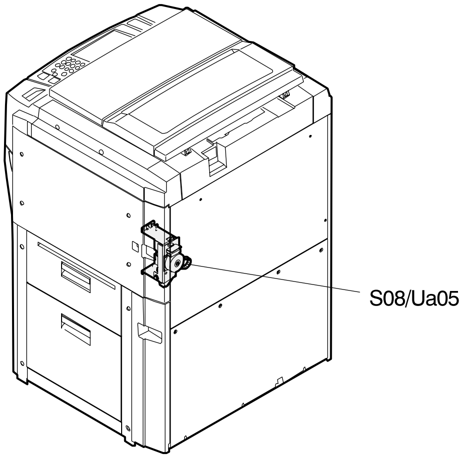

S08/Ua03/P02/CHK

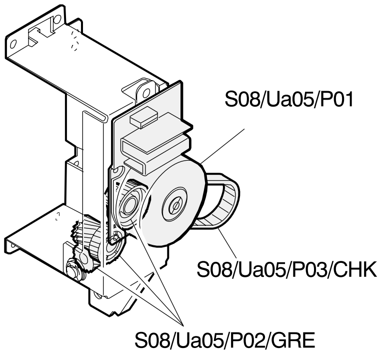
Unit		Part		JOB CODE	Every service call	40K	80K	120K	160K	200K	240K	280K	320K	Remark
U No.	Unit name	P No.	Part name											
Ua04	Paper feed drive unit			ABL										
		P01	Manual paper feed clutch	ABL										
		P02	Paper feed clutch	ABL										
		P03	Gear	GRE	*	*	*	*	*	*	*	*	*	
		P04	Shaft	GRE										
		P05	Paper feed motor	ABL										




S08/Ua04/P01
S08/Ua04/P03/GRE
S08/Ua04/P03/GRE
S08/Ua04/P05
S08/Ua04/P02
S08/Ua04/P03/GRE
S08/Ua04/P04/GRE

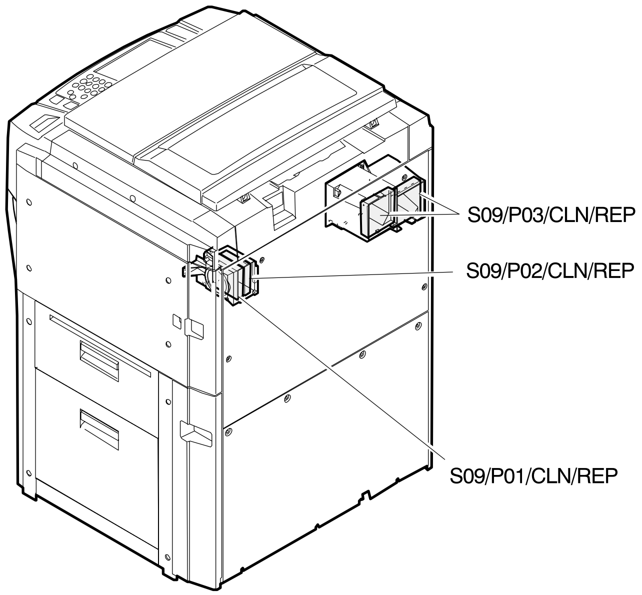
Unit		Part		JOB CODE	Every service call	40K	80K	120K	160K	200K	240K	280K	320K	Remark
U No.	Unit name	P No.	Part name											
Ua05	Developer drive unit (K)			ABL										
		P01	Motor	ABL										
		P02	Gear	GRE	*	*	*	*	*	*	*	*	*	
		P03	Belt	CHK	*	*	*	*	*	*	*	*	*	




S08/Ua05/P01
S08/Ua05/P03/CHK
S08/Ua05/P02/GRE

S09 Filter

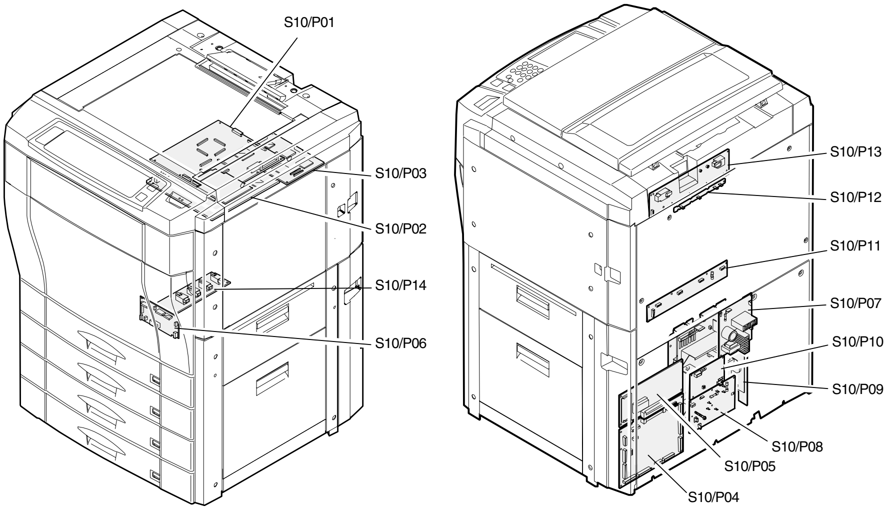
Unit		Part		JOB CODE	Every service call	40K	80K	120K	160K	200K	240K	280K	320K	Remark
U No.	Unit name	P No.	Part name											
		P01	Ozone filter	CLN		*		*		*		*		
				REP			*		*		*		*	
		P02	Toner duct filter	CLN		*		*		*		*		
				REP			*		*		*		*	
		P03	Process filter	CLN		*		*		*		*		
				REP			*		*		*		*	



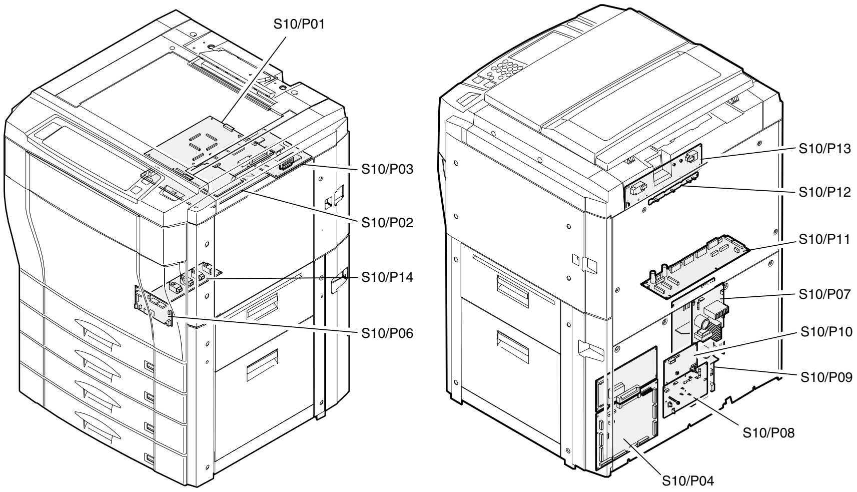
S10 PWB

Unit		Part		JOB CODE	Every service call	40K	80K	120K	160K	200K	240K	280K	320K	Remark
U No.	Unit name	P No.	Part name											
		P01	ICU MAIN PWB	ABL										
		P02	ICU IMAGE PWB	ABL										
		P03	ICU SCAN PWB	ABL										
		P04	PCU MAIN PWB A	ABL										
			PCU MAIN PWB	ABL										
		P05	PCU MAIN PWB B	ABL										
		P06	PCU SUB PWB	ABL										
		P07	Scanner lamp control PWB	ABL										
		P08	AC main power PWB	ABL										
		P09	DC main power PWB	ABL										
			DC power PWB	ABL										AR-C160/C270
		P10	DC sub power PWB	ABL										
			Power control PWB											AR-C160/C270
		P11	OPC drum drive PWB	ABL										
			OPC drum drive/ Signal interface PWB	ABL										AR-C160/C270
		P12	High voltage power interface PWB	ABL										
		P13	High voltage power PWB (Main charger, developing bias)	ABL										
		P14	High voltage power PWB (Transfer charger)	ABL										

(AR-C150/C250)

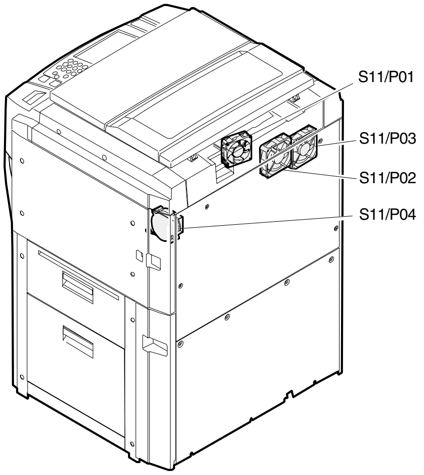

S10/P01
S10/P03
S10/P02
S10/P14
S10/P06
S10/P13
S10/P12
S10/P11
S10/P07
S10/P10
S10/P09
S10/P08
S10/P05
S10/P04

(AR-C160/C270)


S10/P01
S10/P03
S10/P02
S10/P14
S10/P06
S10/P13
S10/P12
S10/P11
S10/P07
S10/P10
S10/P09
S10/P08
S10/P04

S11 Fan motor

Unit		Part		JOB CODE	Every service call	40K	80K	120K	160K	200K	240K	280K	320K	Remark
U No.	Unit name	P No.	Part name											
		P01	Scanner (reading) cooling fan motor	ABL										
		P02	Scanner (writing) cooling fan motor	ABL										
		P03	Fusing exhaust fan motor	ABL										
		P04	Process exhaust fan motor	ABL										

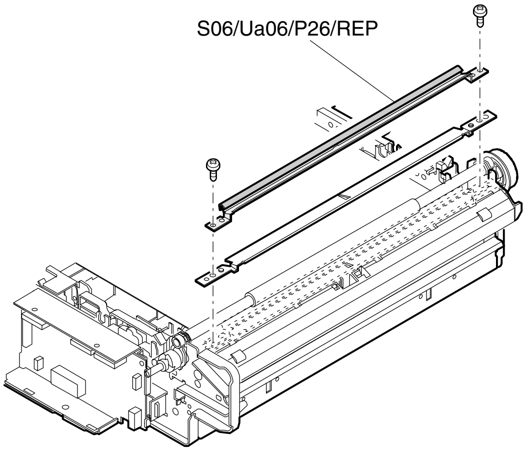

S11/P01
S11/P03
S11/P02
S11/P04

3. Details

S06 Image process section

S06/Ua06/P26 Resist roller cleaner

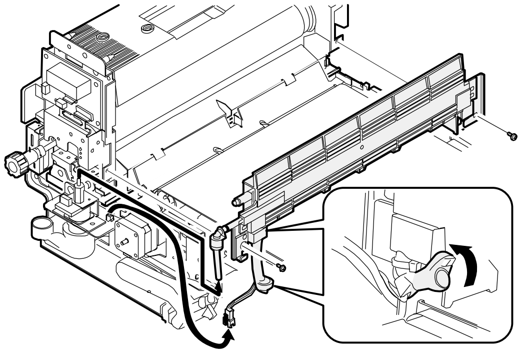
1) Pull out the transfer belt unit.
2) Remove the resist roller cleaner (S06/Ua06/P26).



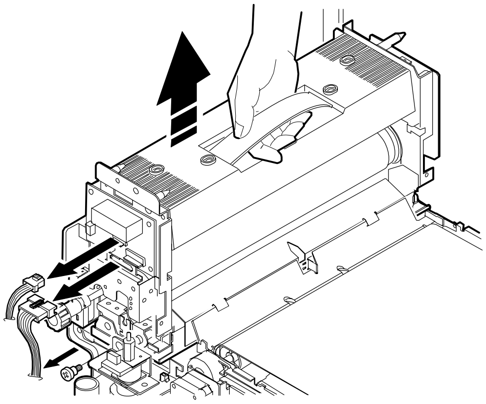
S07 Fusing/paper exit section

S07/Ua01 Fusing unit

1) Open the front cover. S01/P04
2) Remove the hopper unit. S06/Ua01
3) Remove the process frame cover. S06/Ua02
4) Pull out the fusing/transfer unit. S06/Ua06
5) Remove the fusing front cover. S06/U06
6) Disconnect the oil pump and the pipe, and hang the pipe on the hook.
7) Remove the connector.



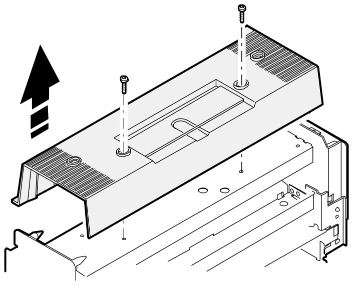
8) Remove the step screw and the connector, and remove the fusing unit (S07/U01).



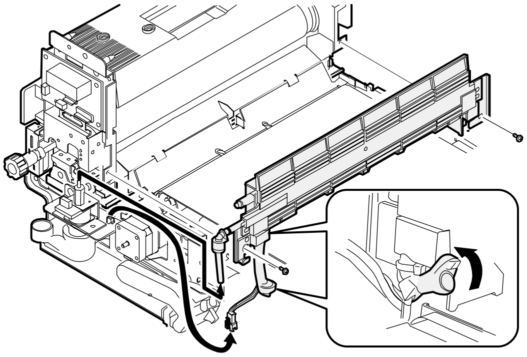
(Note) When a strong external pressure is applied to the fusing unit which is installed to the machine, the oil pipe may come off from the oil pump section. Be careful of it.

S07/Ua01/P01 Thermistor (upper)

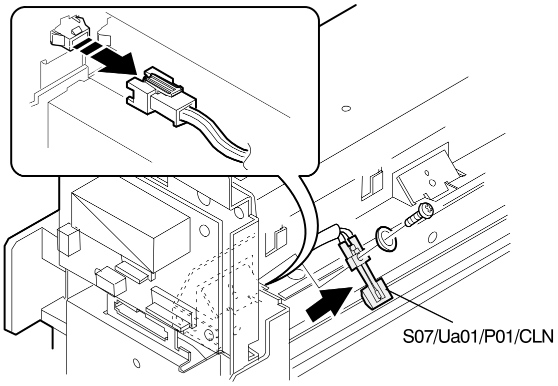
1) Remove the screw, and remove the fusing upper cover.



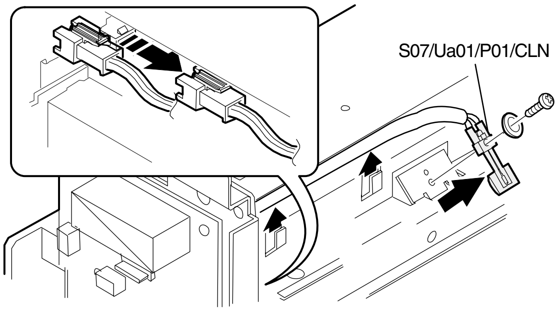
2) Remove the oil applying unit.



3) Remove the Thermistor (upper) (S07/Ua01/P01/CLN).
   * Clean with alcohol.

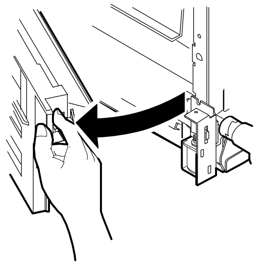


4) Remove the Thermistor (lower) (S07/Ua01/P01/CLN)
   * Clean with alcohol.

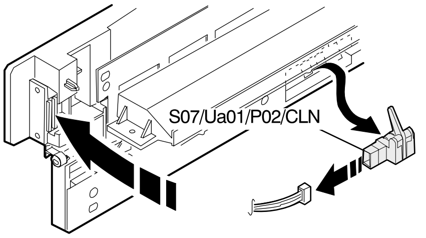


S07/Ua01/P02 Duplex paper exit detector

1) Open the paper exit transport guide.



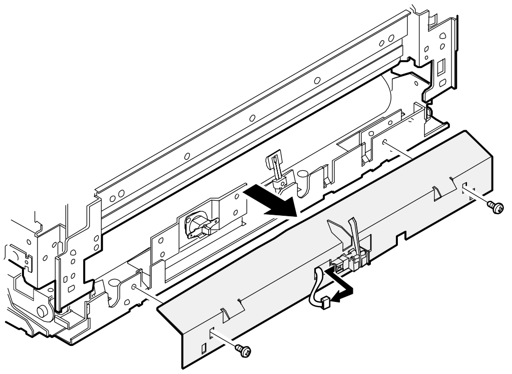
2) Remove the connector, and remove the duplex paper exit detector (S07/Ua01/P02/CLN).



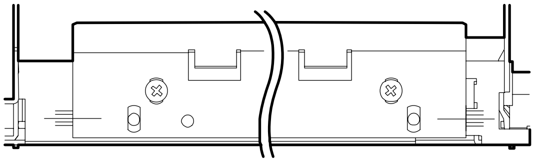
＊ Clean the detector.

S07/Ua01/P03 Thermistor (lower)

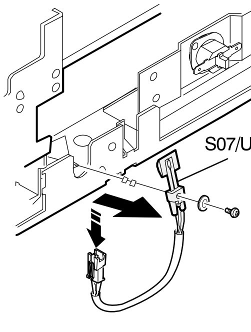
1) Remove the fusing upper cover.
2) Remove the screw, the washer, and the connector.
3) Remove the screw and the connector, and remove the fusing front paper guide unit.



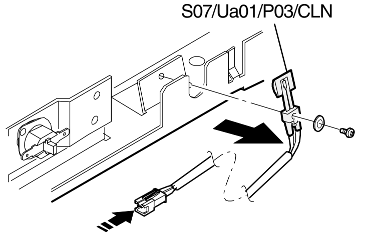
Fusing front paper guide installing position:
Install so that the line mark of the fusing front paper guide comes at the center of the mark on the fusing unit.



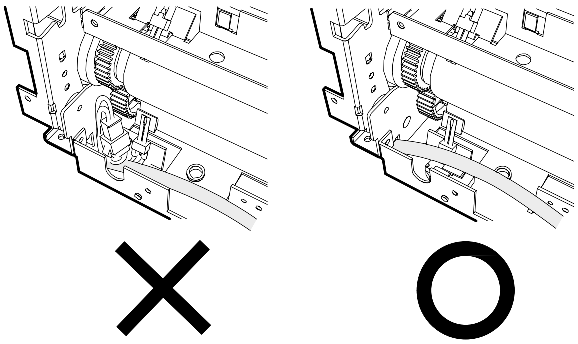
4) Remove the detection Thermistor (lower) (S07/Ua01/P03/CLN).
   ＊ Clean with alcohol.



5) Remove the Thermistor pair (lower) (S07/Ua01/P03/CLN).
   ＊ Clean with alcohol.

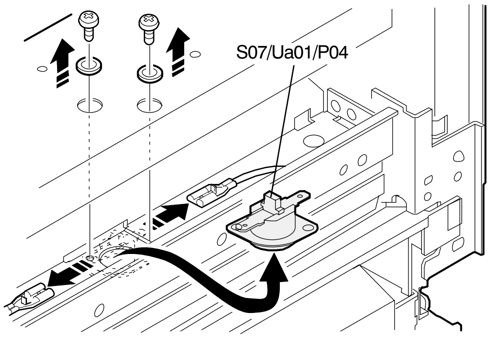


(Note) Fix the thermistor so that the thermistor harness is way from the drive section (gear).

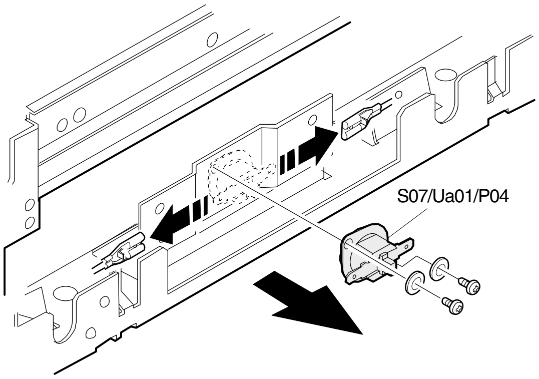


S07/Ua01/P04 Thermostat

1) Remove the fusing upper cover.
2) Remove the screw and the connector, and remove the thermostat (upper) (S07/Ua01/P04).

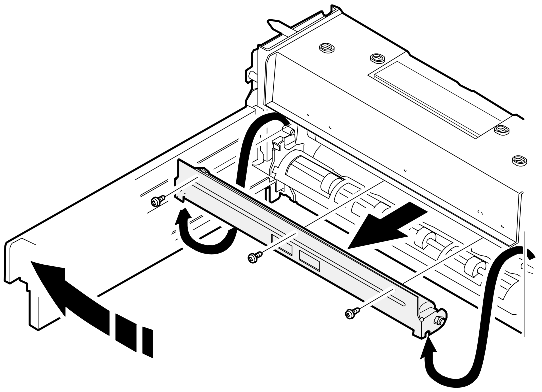


3) Remove the fusing front paper guide unit.
4) Remove the screw and the connector, and remove the thermostat (lower) (S07/Ua01/P04).



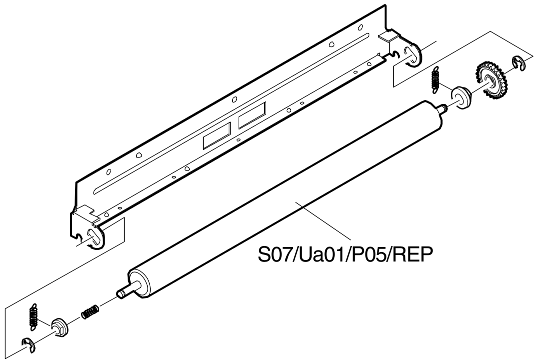
S07/Ua01/P05 Upper cleaning roller

1) Open the paper exit/transport mechanism.
2) Remove the screw, and remove the upper cleaning roller unit.

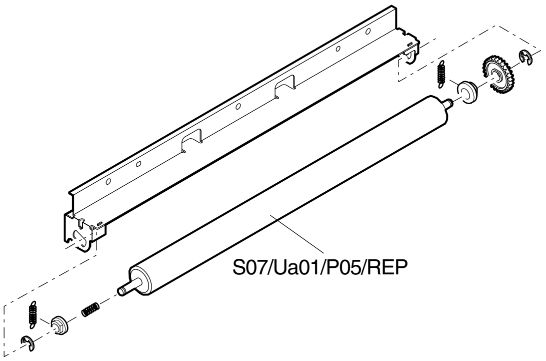


3) Remove the parts, and remove the upper cleaning roller (S07/Ua01/P05/REP).

(AR-C100/C150)


S07/Ua01/P05/REP

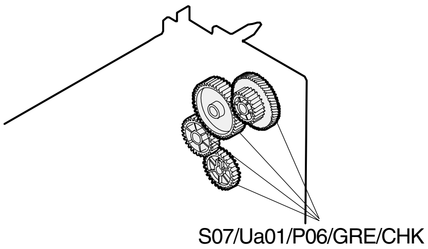
(AR-C250/C160/C270)


S07/Ua01/P05/REP

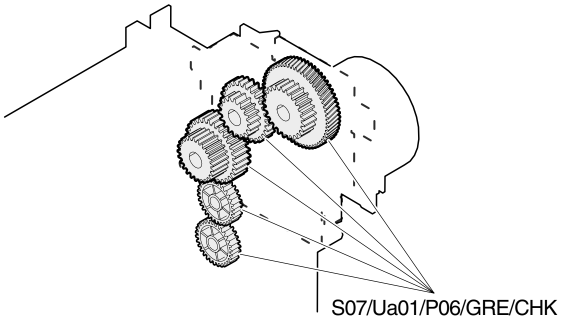
S07/Ua01/P06 Gear

* Apply grease to the gear.

(AR-C100/C150/C250)


S07/Ua01/P06/GRE/CHK

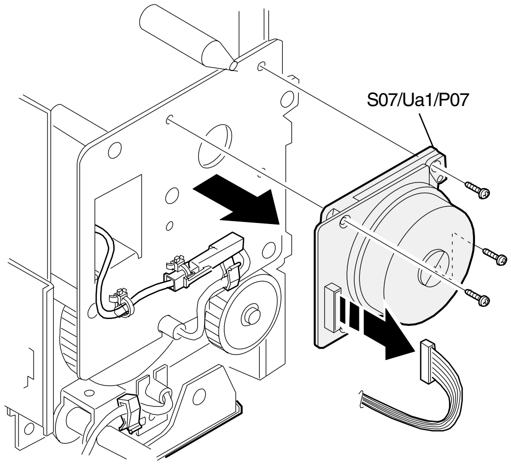
(AR-C160/C270)


S07/Ua01/P06/GRE/CHK

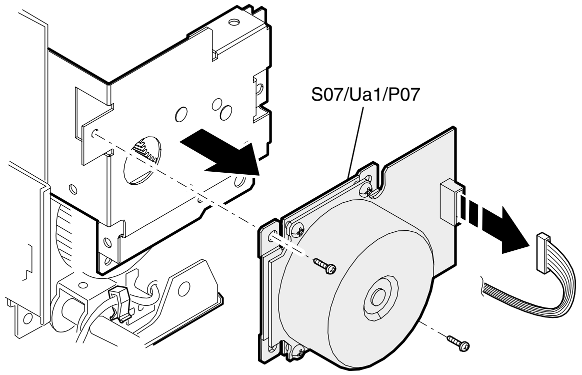
S07/Ua01/P07 Fusing drive motor

1) Remove the screw and the connector, and remove the fusing drive motor (S07/Ua01/P07).

(AR-C100/C150/C250)

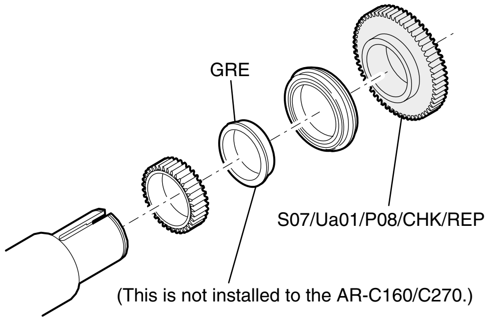


(AR-C160/C270)



S07/Ua01/P08 Upper heat roller gear R

1) Remove the upper heat roller unit. S07/Ua01/P13
   * Apply grease to the inside of the collar.

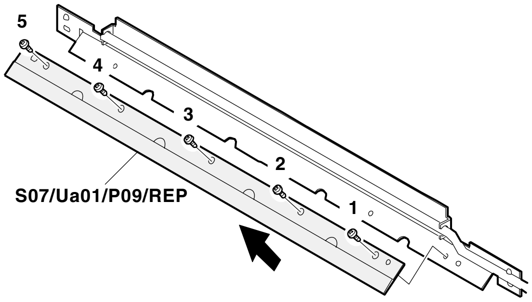

GRE
S07/Ua01/P08/CHK/REP

(This is not installed to the AR-C160/C270.)

* For the AR-C160/C270 replace the whole unit of the upper heat roller unit.

S07/Ua01/P09 Oil applying felt

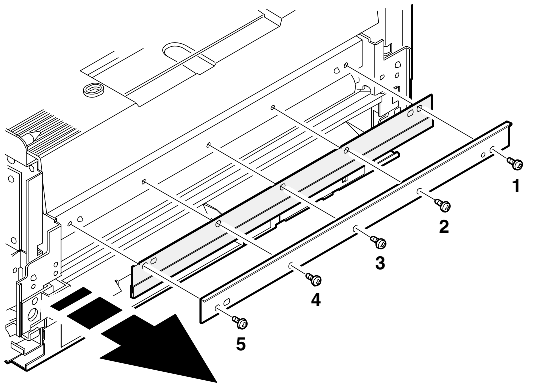
1) Remove the fusing front cover.
2) Remove the screw, the pipe holder, and the oil applying felt unit.
3) Remove the screw, and remove the oil applying felt (S07/Ua01/P09/REP).


5
4
3
2
1
S07/Ua01/P09/REP

* When assembling, tighten the screws in the sequence of numbering.

S07/Ua01/P10 Oil applying blade

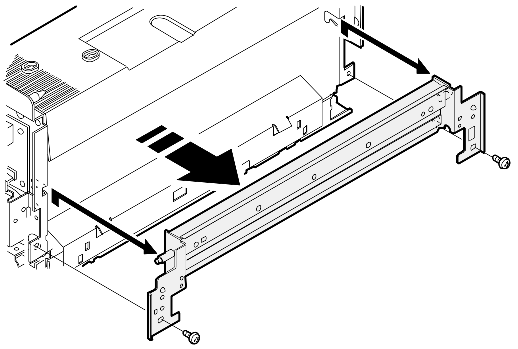
1) Remove the screw, and remove the oil applying blade (S07/Ua01/P10/REP).



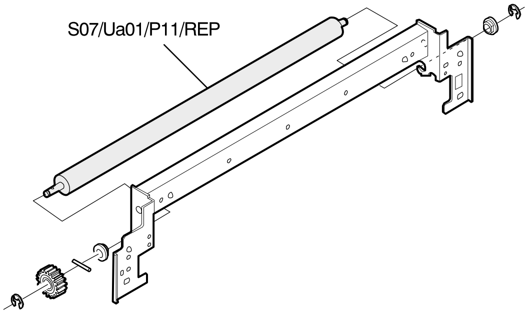
＊ When assembling, tighten the screws in the sequence of numbering.

S07/Ua01/P11 Oil applying roller

1) Remove the screw, and remove the oil applying unit.

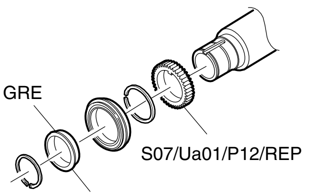


2) Remove the oil applying roller.



S07/Ua01/P12 Upper heat roller gear F

1) Remove the upper heat roller unit. S07/Ua01/P13
   ＊ Apply grease to the inside of the collar.



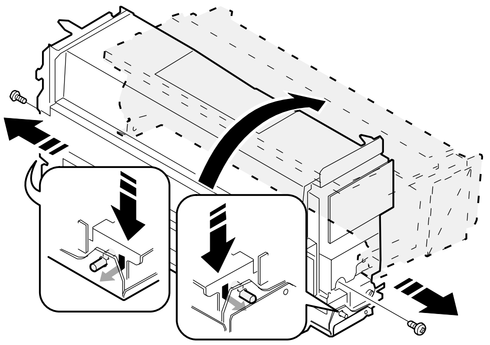
(This is not installed to the AR-C160/C270.)

＊ For the AR-C160/C270, replace the whole unit of the upper heat roller unit.

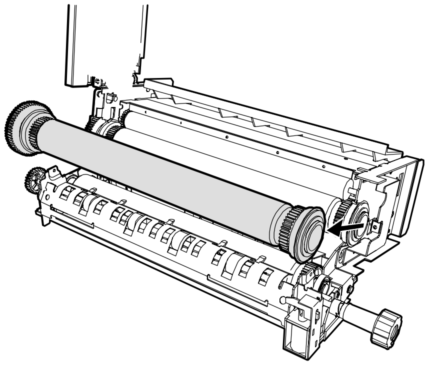
S07/Ua01/P13 Upper heat roller

1) Remove the heater lamps. S07/Ua01/P14 S07/Ua01/P18

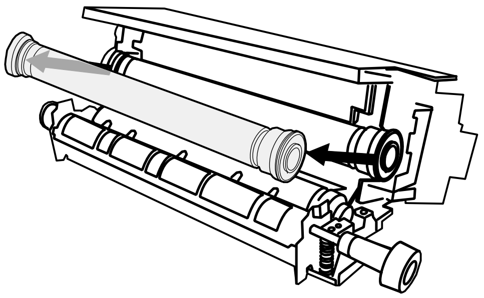
2) Remove the step screw and the connector, and release the pressure. Remove the fixing screws of the upper/lower fusing units, then remove the upper/lower fusing units upward/downward.



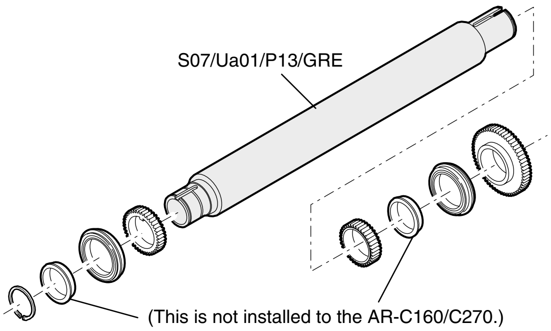
3) Remove the upper heat roller unit.
   (AR-C250)



(AR-C150)



4) Remove the parts, and remove the upper heat roller (S07/Ua01/P16/REP).

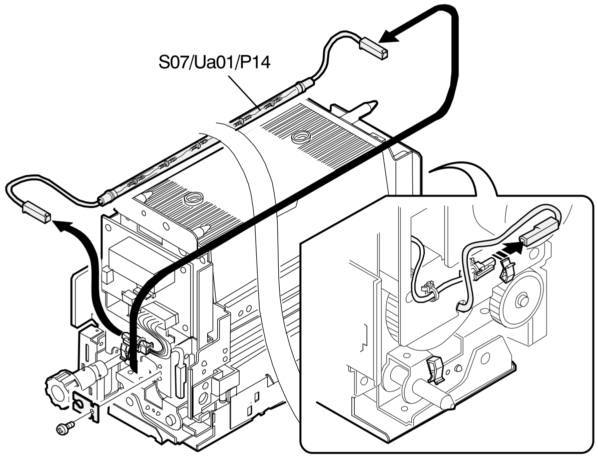


(This is not installed to the AR-C160/C270.)

＊ For the AR-C160/C270, replace the whole unit of the lower heat roller unit.

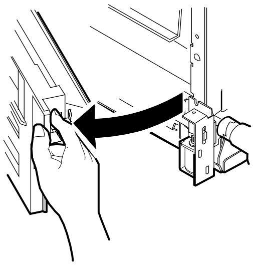
S07/Ua01/P14 Upper heater lamp

1) Remove the lamp holders and the connector.
2) Remove the upper heater lamp.

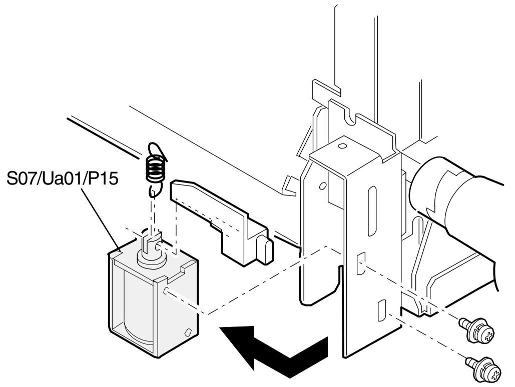

S07/Ua01/P14

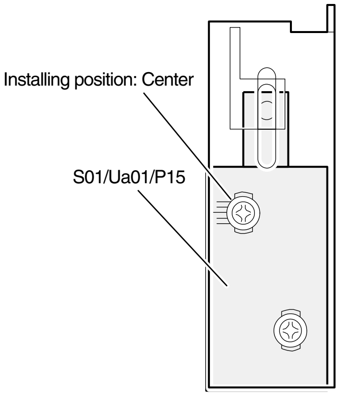
S07/Ua01/P15 Duplex gate solenoid (AR-C150/C250)

1) Open the paper exit/transport guide.



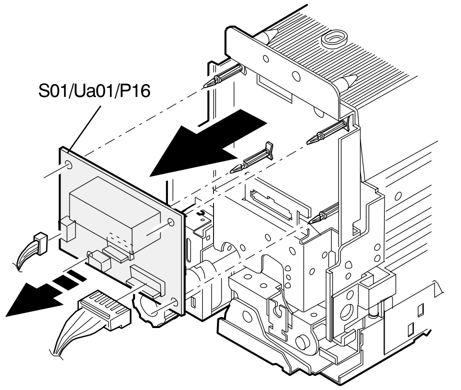
2) Remove the screw and the spring, and remove the duplex gate solenoid.


S07/Ua01/P15


Installing position: Center
S01/Ua01/P15

S07/Ua01/P16 Heater lamp control PWB (AC sub PWB)

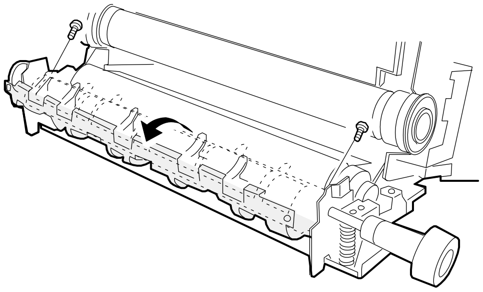
1) Remove the connector, and remove the heater lamp control PWB (AC sub PWB) (S07/Ua01/P16).


S01/Ua01/P16

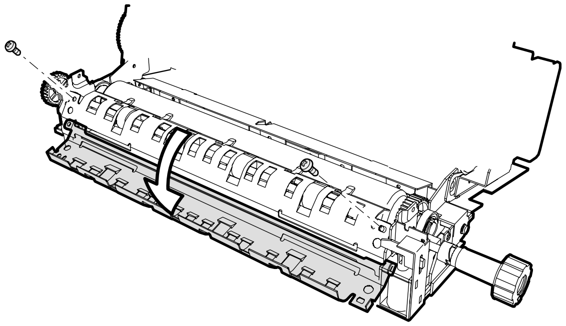
S07/Ua01/P17 Lower separation pawl

1) Open the upper and the lower fusing units.
2) Open the lower separation pawl unit (paper guide).

(AR-C150)

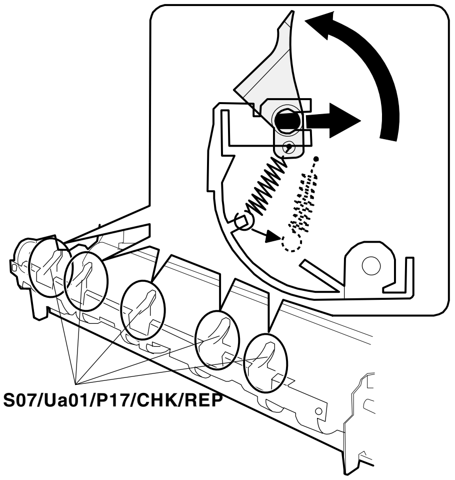


(AR-C250/C160/C270)

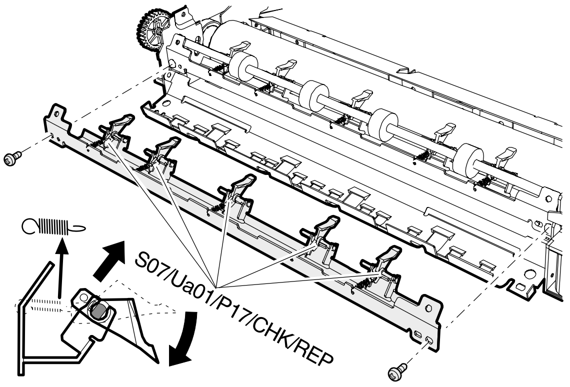


3) Remove the spring, and remove the lower separation pawl (S07/Ua01/P17/CHK/REP).

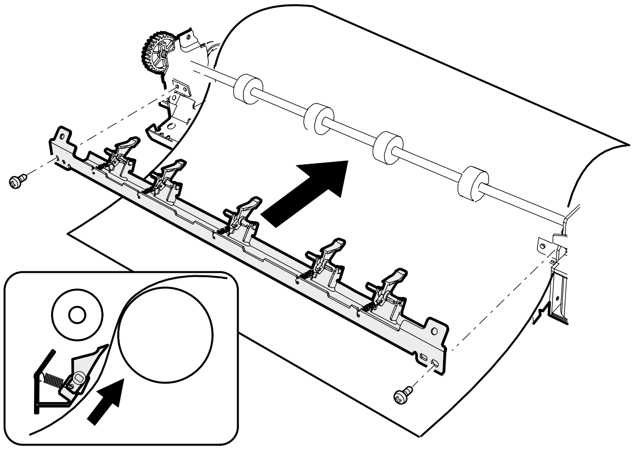
(AR-C150)


S07/Ua01/P17/CHK/REP

(AR-C250/C160/C270)

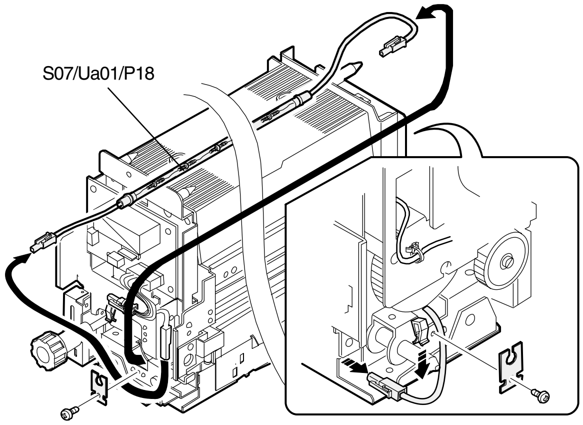


* When installing the lower separation pawl unit (paper guide) in the AR-C250, observe the following instruction.
Insert thick paper of OHP sheet (A4 or 11" × 8.5" or greater) between the lower heat roller and the paper exit roller, and install so that the lower separation pawl is along the paper.



S07/Ua01/P18 Lower heater lamp

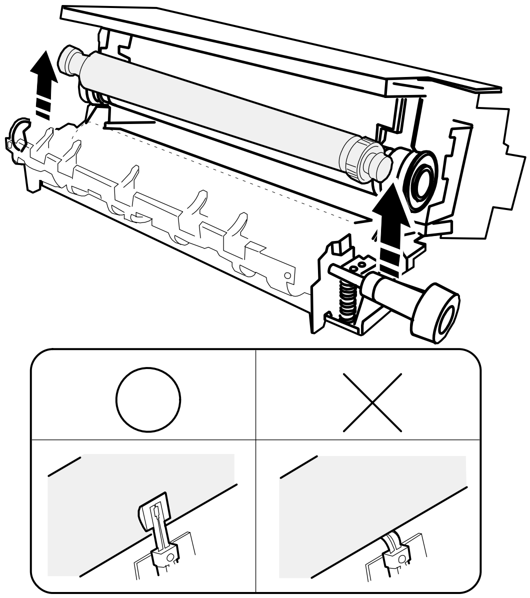
1) Remove the lamp holders and the connectors.
2) Pull out the lower heat lamp.



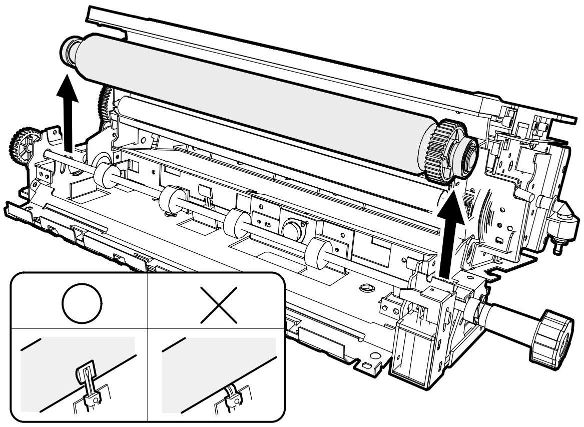
S07/Ua01/P19 Lower heat roller

1) Remove the heater lamps. S07/Ua01/P14 S07/Ua01/P18
2) Open the upper and the lower fusing units.
3) Remove the lower separation pawl unit (paper guide), and remove the lower heat roller unit.

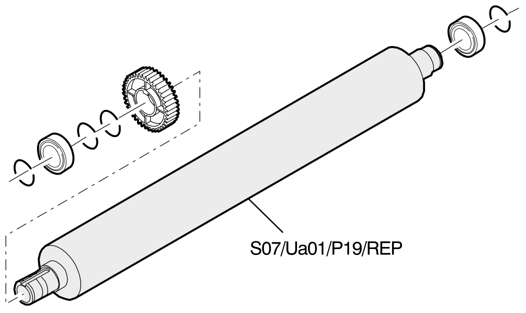
(AR-C100/C150)



(AR-C250/C160/C270)



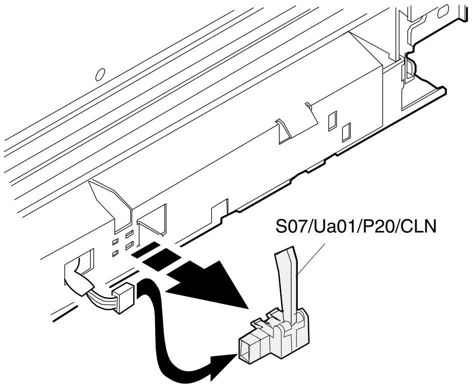
4) Remove the parts, and remove the lower heat roller.



* For the AR-C160/C270, replace the whole unit of the lower heat roller unit.

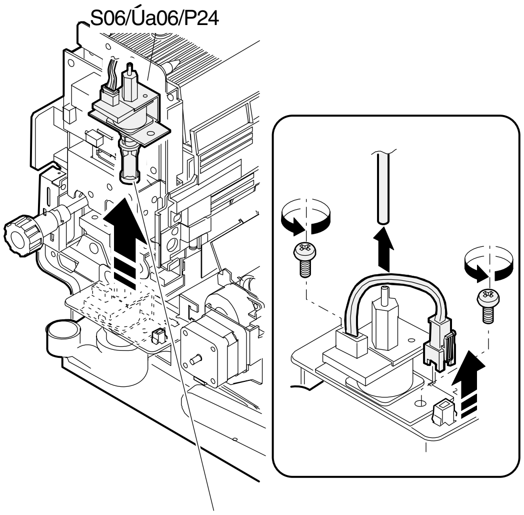
S07/Ua01/P20 Paper entry detector

1) Remove the connector, and remove the paper entry detector (S07/Ua01/P20).
   ＊ Clean the detector.



S07/Ua01/P21 Oil pump

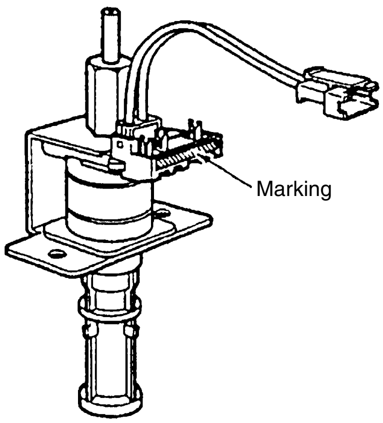
Clean and remove oil attached on the external surfaces.



Clean the oil filter attached to the oil pump suction port with waste cloth.

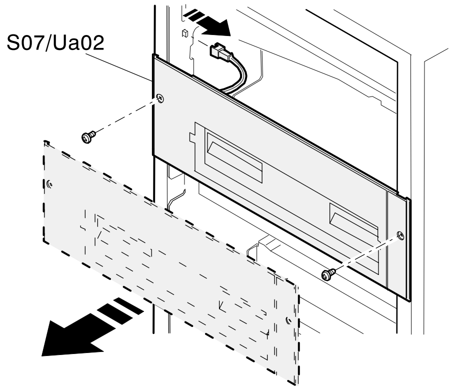
If the oil filter is clogged, oil is not sufficiently supplied to the heat roller, causing a trouble.

- When installing (replacing) this pump, set the pump operation value of Sim 43-7 referring to the marking color shown in the illustration below.



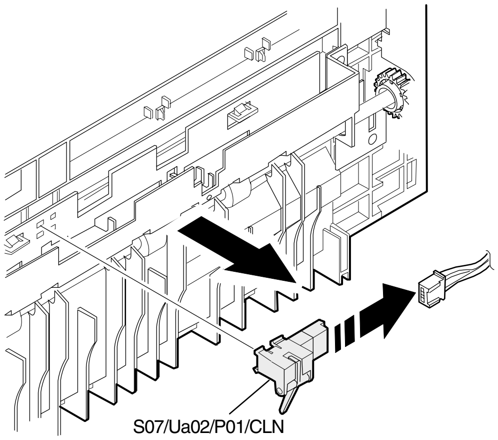
S07/Ua02 Paper exit unit

1) Remove the screw and the connector, and remove the paper exit unit (S07/Ua02).



S07/Ua02/P01 Paper exit detector

1) Remove the paper exit unit. S07/Ua02
2) Remove the connector, and remove the paper exit detector (S07/Ua02/P01/CLN).
   ＊ Clean it.

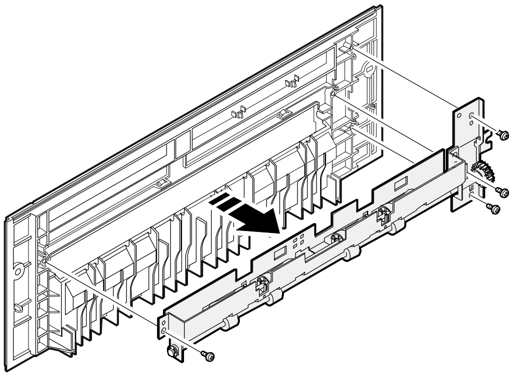


S07/Ua02/P02 Paper exit roller

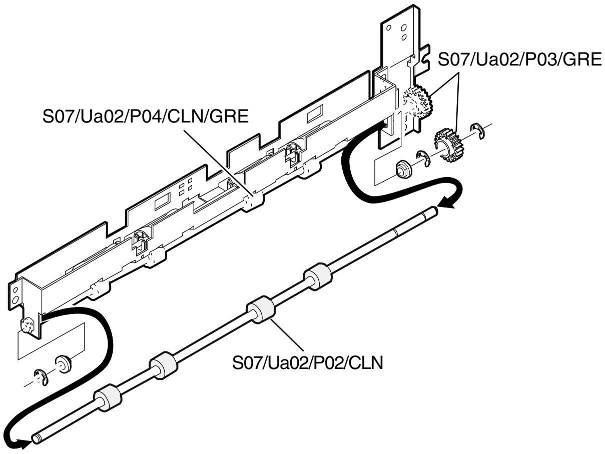
S07/Ua02/P03 Gear

S07/Ua02/P04 Paper exit idle roller

1) Remove the paper exit unit. S07/Ua02
2) Remove the screw, and remove the paper exit roller unit.



3) Remove the parts, and remove the paper exit roller (S07/Ua02/P02/CLN).
   ∗ Clean with alcohol.



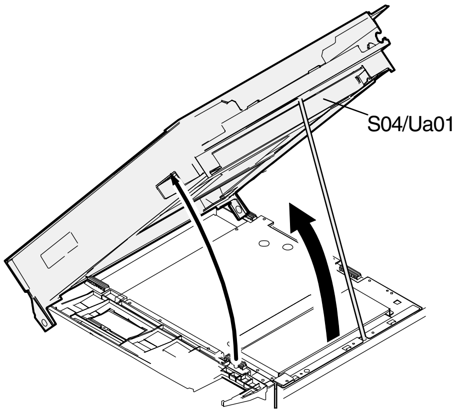
∗ Apply grease to the gear (S07/Ua02/P03/GRE) and the inside of the paper exit idle roller (S07/Ua02/P04/CLN/GRE).

S10 PWB

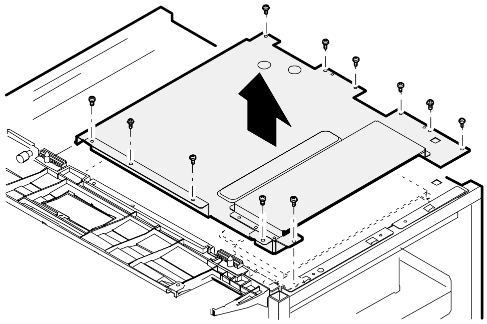
S10/P01 ICU main PWB
S10/P02 ICU image PWB
S10/P03 ICU scan PWB

(AR-C150/C250)

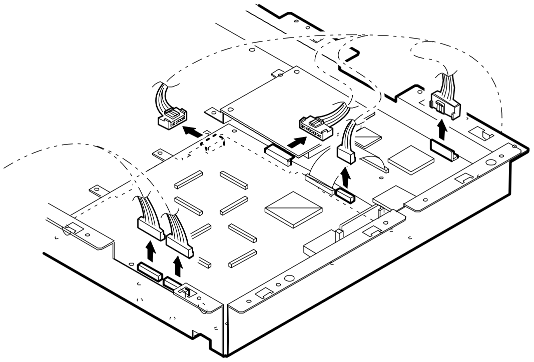
1) Remove the original cover. S01/P01
2) Remove the rear cover upper. S01/P02
3) Remove the glass holder right. S01/P05
4) Remove the glass holder left. S01/P06
5) Remove the table glass. S01/P07
6) Remove the shading glass AS. S01/P08
7) Remove the operation unit. S02/Ua01
8) Remove the screw, and remove the dark box cover.
9) Remove the screw, and remove the flat cable holder.
10) Remove the flat cable from the CCD.
11) Remove the screw, and remove the scanner fixing angle.
12) Remove the screw, and remove the stopper.
13) Open the scanner (reading) unit. Support it with the stopper.

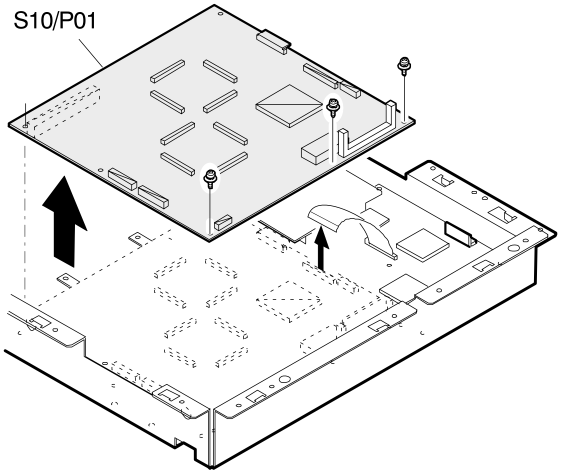


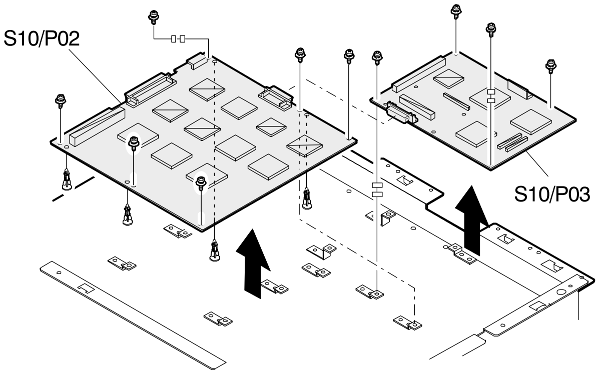
14) Remove the screw, and remove the ICU cover.



15) Remove the ICU main PWB, the ICU image PWB, and the ICU scan PWB.

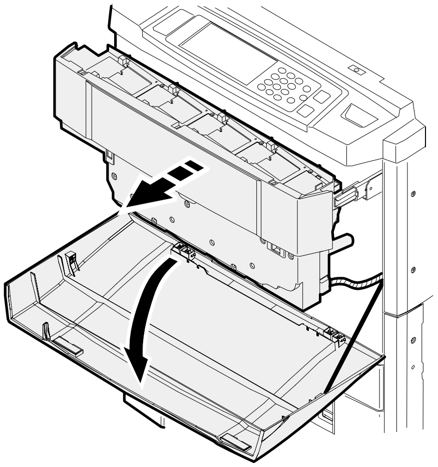


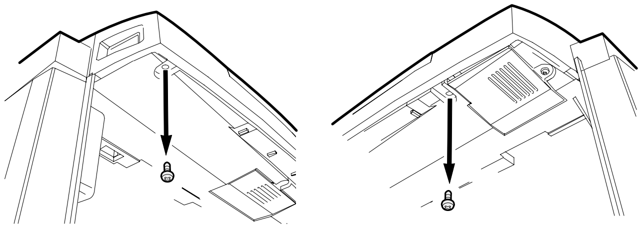




(AR-C160/C270)

1) Remove the operation unit.

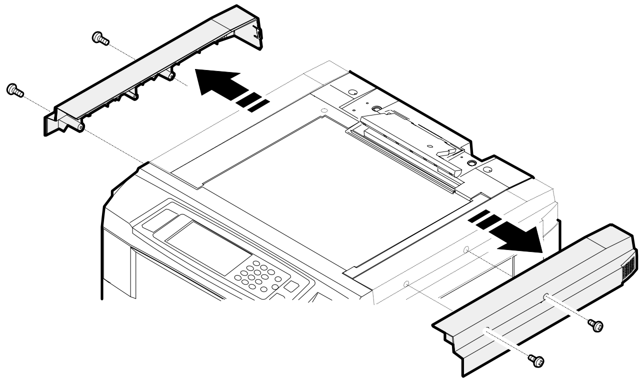




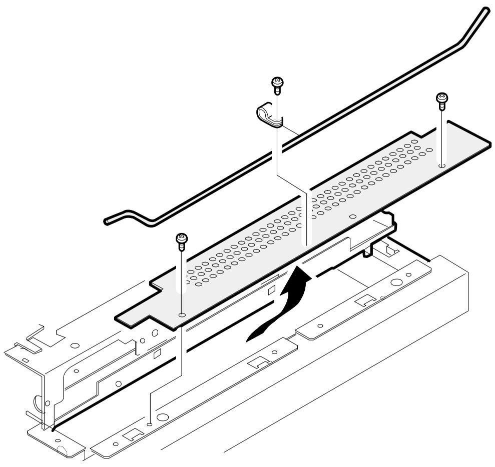
Left side

Right side

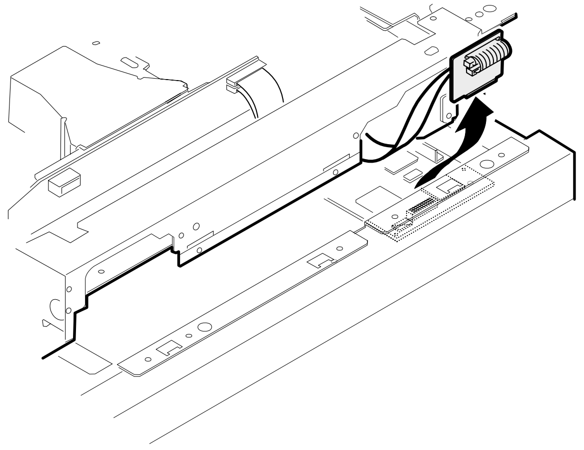
2) Remove the left and right upper cabinet.



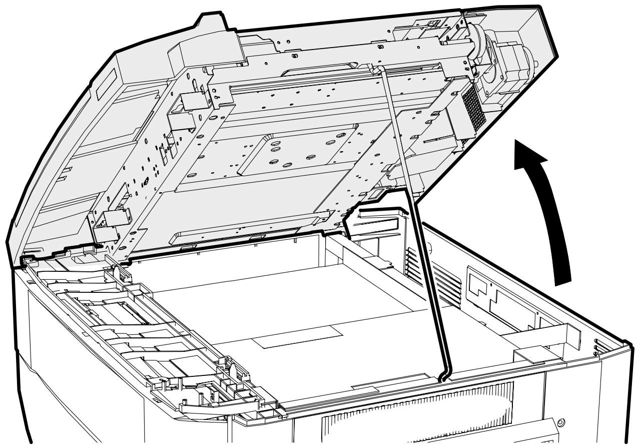
3) Remove the ICU PWB shield plate.



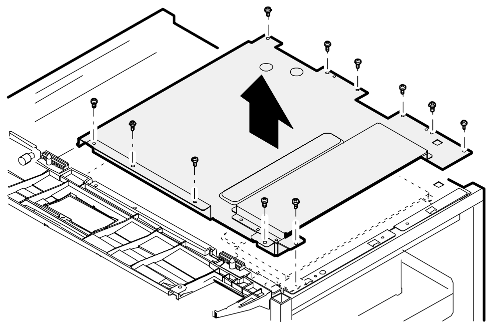
4) Remove the CCD flat cable connector.



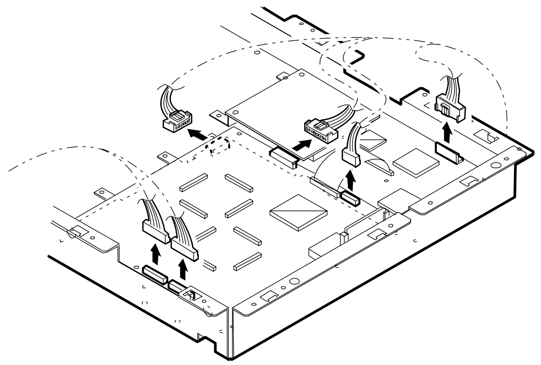
5) Open the scanner (reading) unit and fix it with the hold shaft.

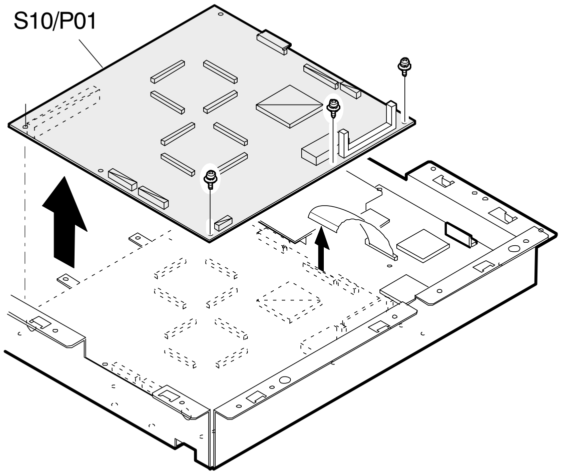


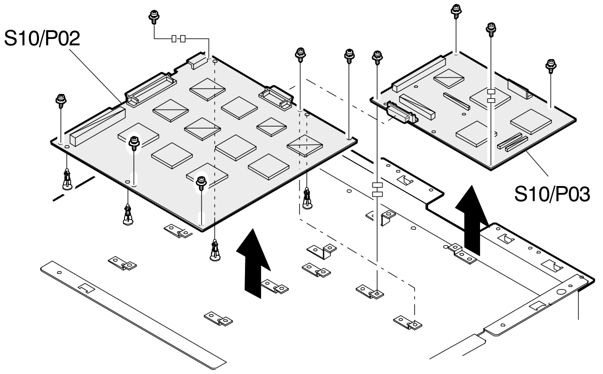
6) Remove the screw, and remove the ICU cover.



7) Remove the ICU main PWB, the ICU image PWB, and the ICU scan PWB.







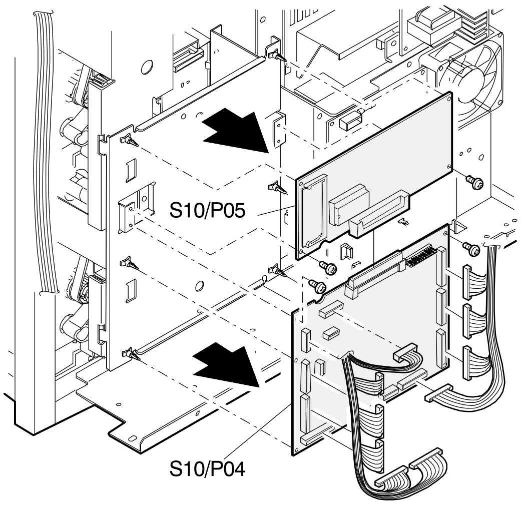
S10/P04 PCU main PWB (AR-C250/C160/C270)

S10/P04 PCU main PWB A (AR-C100/C150)

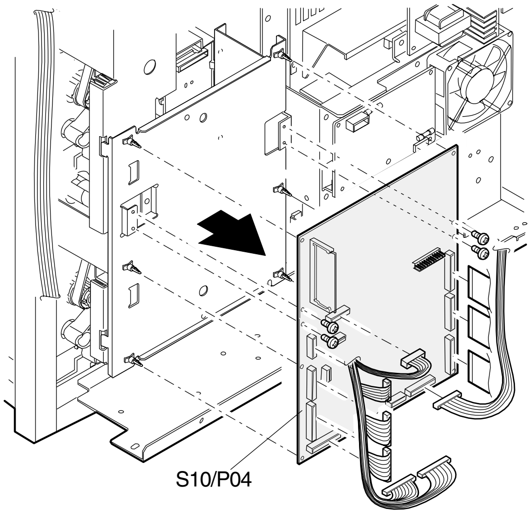
S10/P05 PCU main PWB B (AR-C100/C150)

1) Remove the rear cabinet upper. S01/P02
2) Remove the rear cabinet lower. S01/P03
3) Remove the screw and the connector, and remove the PCU main PWB A and the PCU main PWB B.

(AR-C100/C150)

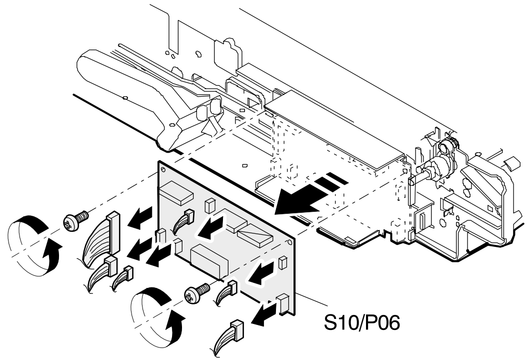


(AR-C160/C270)



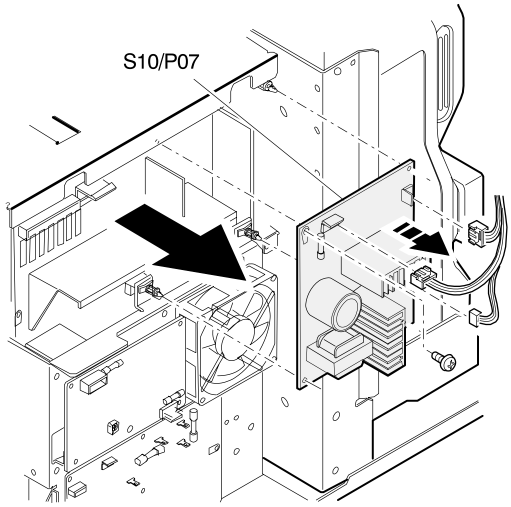
S10/P06 PCU sub PWB

1) Remove the transfer cover and the fusing cover. S06/Ua06
2) Remove the PCU sub PWB.



S10/P07 Scanner lamp control PWB

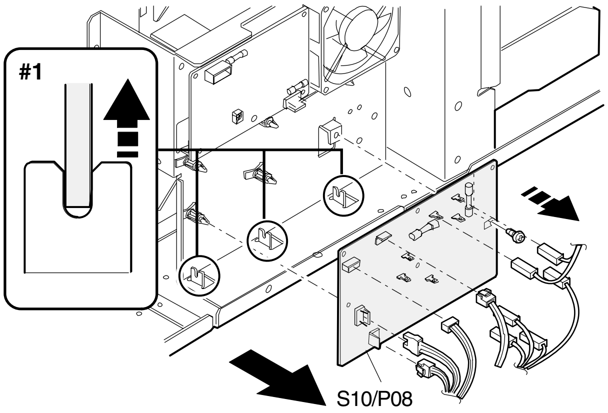
1) Remove the rear cabinet upper. S01/P02
2) Remove the rear cabinet lower. S01/P03
3) Remove the screw and the connector, and remove the scanner lamp control PWB.



S10/P08 AC main power PWB

1) Remove the rear cabinet upper. S01/P02
2) Remove the rear cabinet lower. S01/P03
3) Remove the screw and the connector, and remove the AC main power PWB.

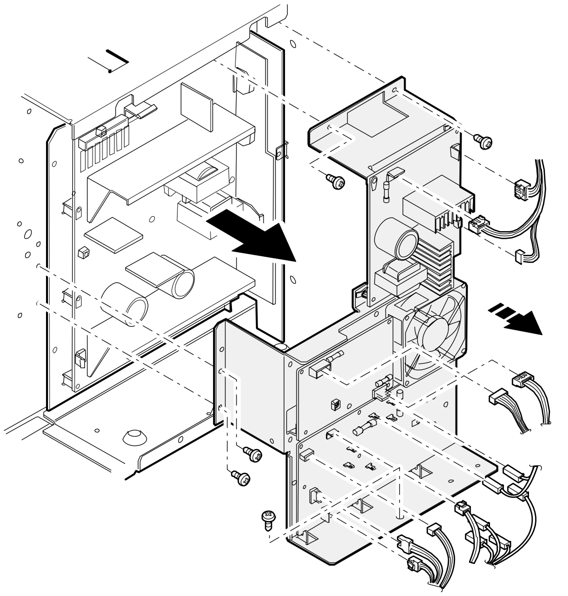
Remove it from the notch section (#1) of the frame.



S10/P09 DC main power PWB (AR-C100/C150/C250)

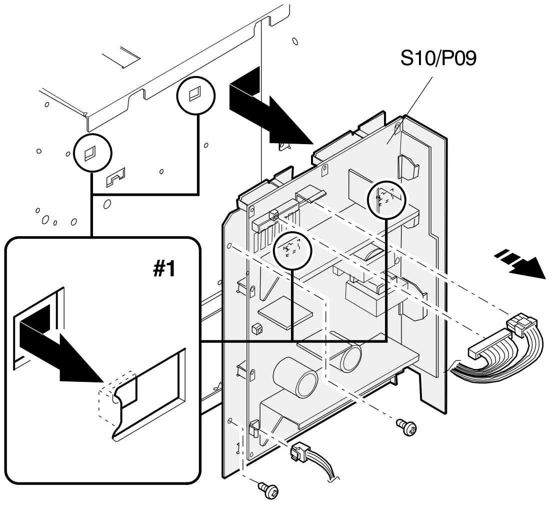
S10/P09 DC power PWB (AR-C160/C270)

1) Remove the rear cabinet upper. S01/P02
2) Remove the rear cabinet lower. S01/P03
3) Remove the screw and the connector, and remove the AC power unit.

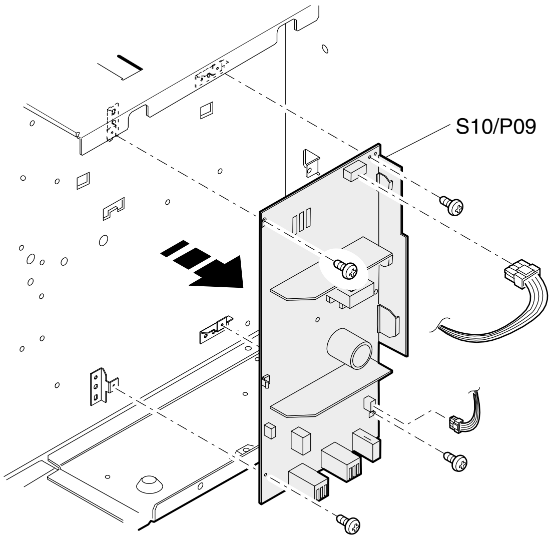


4) Remove the screw and the connector, and remove the DC main power PWB. (AR-C100/C150/C250)
   Remove the screw and the connector, and remove the DC power PWB. (AR-C160/C270)
   Remove if from the notch section of the chassis R side (#1).

(AR-C100/C150/C250)



(AR-C160/C270)

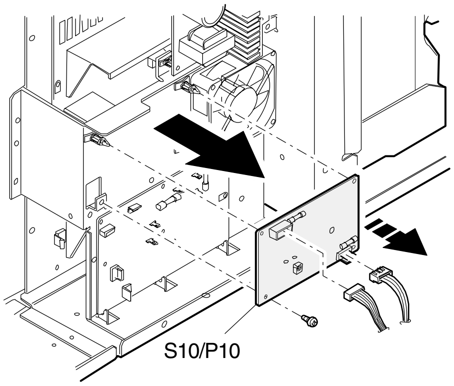


S10/P10 DC sub power PWB (AR-C100/C150/C250)

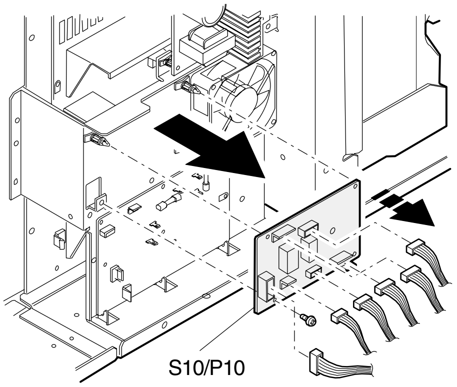
S10/P10 Power control PWB (AR-C160/C270)

1) Remove the rear cabinet upper. S01/P02
2) Remove the rear cabinet lower. S01/P03
3) Remove the screw and the connector, and remove the DC sub power PWB. (AR-C100/C150/C250)
   Remove the screw and the connector, and remove the power control PWB. (AR-C160/C270)

(AR-C100/C150/C250)



(AR-C160/C270)



S10/P11 OPC drum drive PWB (AR-C100/C150/C250)

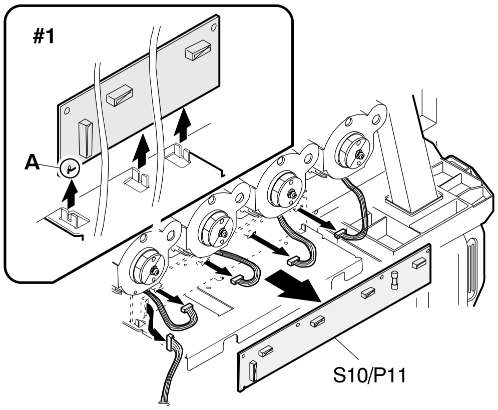
S10/P11 OPC drum drive/Signal interface PWB (AR-C160/C270)

1) Remove the rear cabinet upper. (S01/P02)
2) Remove the rear cabinet lower. (S01/P03)
3) Remove the connector, and remove the OPC drum drive PWB. (AR-C100/C150/C250)

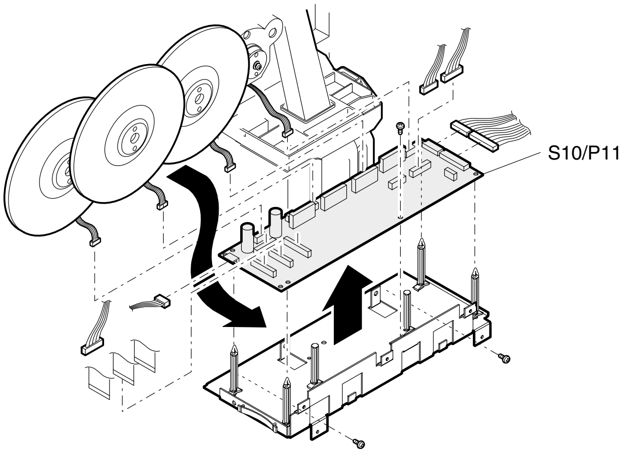
   Remove the connector, and remove the OPC drum drive/Signal interface PWB. (AR-C160/C270)

Remove if from the notch section of the frame (#1). When assembling, engage it with the notch section.

(AR-C100/C150/C250)



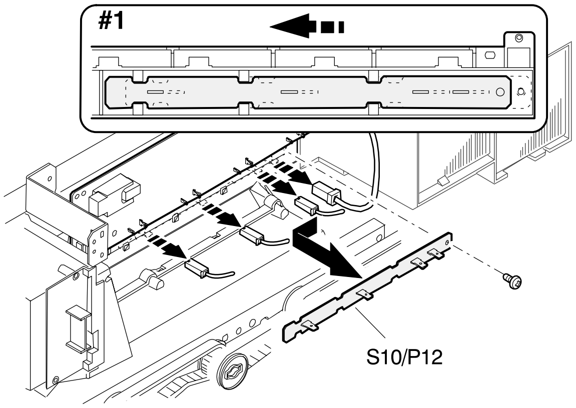
(AR-C160/C270)



S10/P12 High voltage power interface PWB

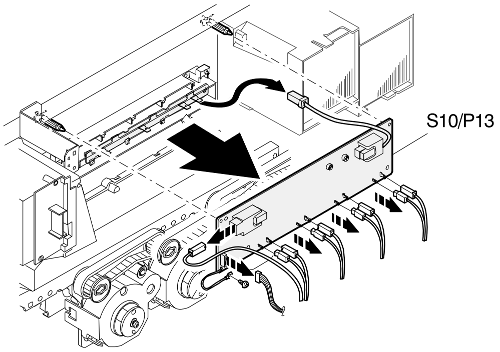
1) Remove the rear cabinet upper. S01/P02
2) Remove the rear cabinet lower. S01/P03
3) Remove the screw and the connector, and remove the high voltage power interface PWB.

Slide the MC brunch PWB (#1) to the left to remove it from the high voltage PWB mounting plate.



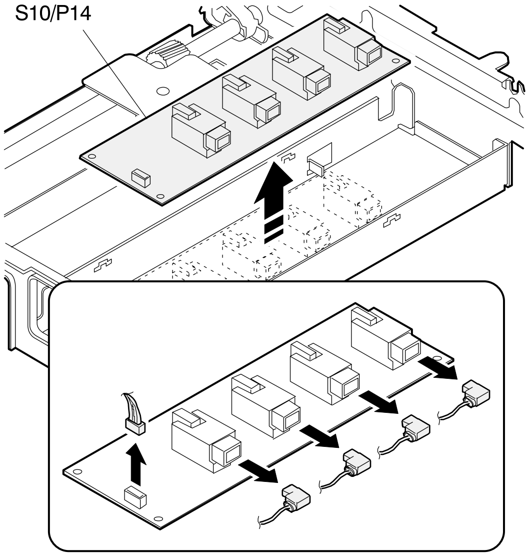
S10/P13 High voltage power PWB (Main charger/ Developing bias)

1) Remove the rear cabinet upper. S01/P02
2) Remove the rear cabinet lower. S01/P03
3) Remove the screw and the connector, and remove the high voltage power PWB (main charger. Developing bias).



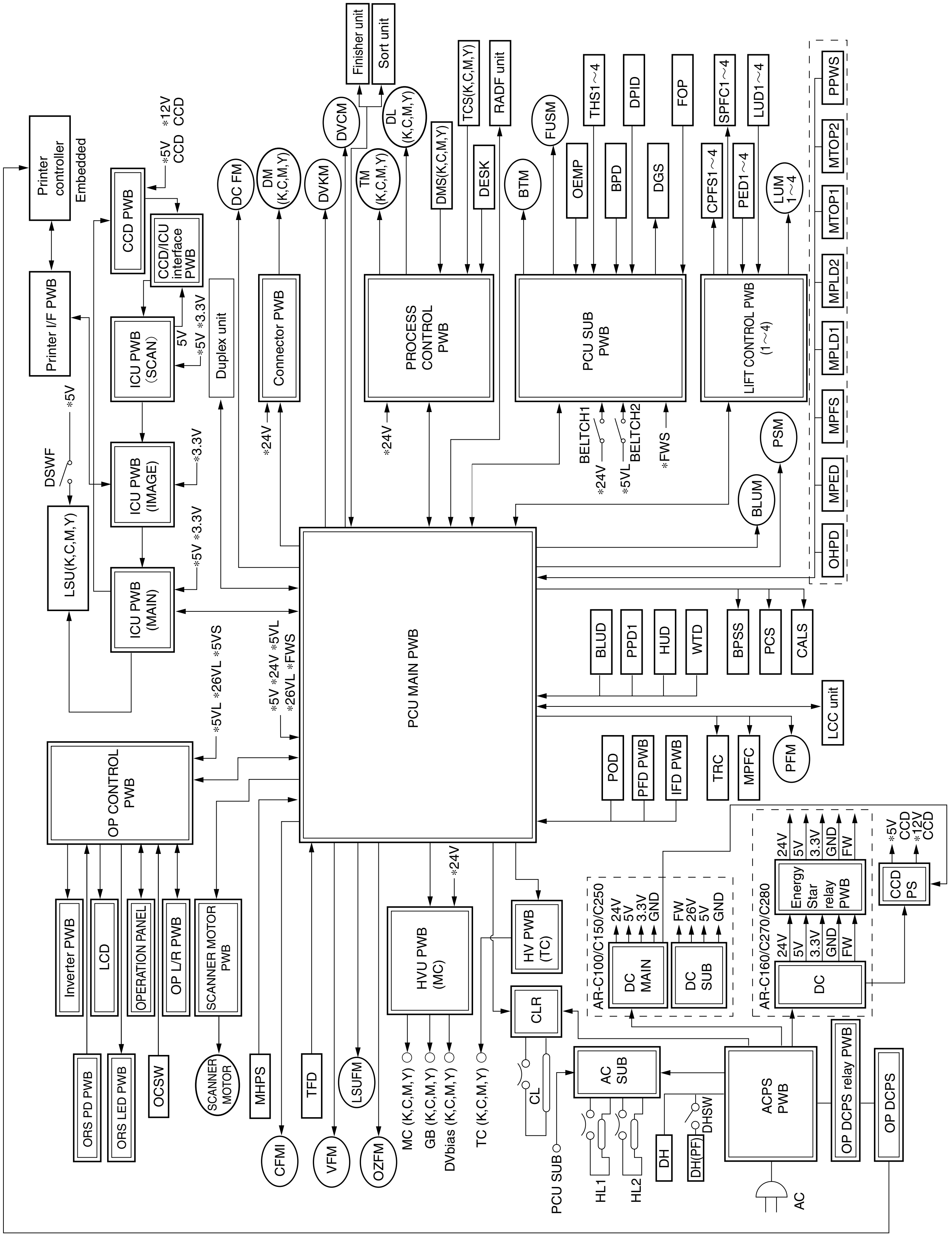
S10/P14 High voltage power PWB (Transfer charger)

1) Remove the transfer inner unit. S06/Ua06
2) Remove the high voltage power PWB (transfer charger).



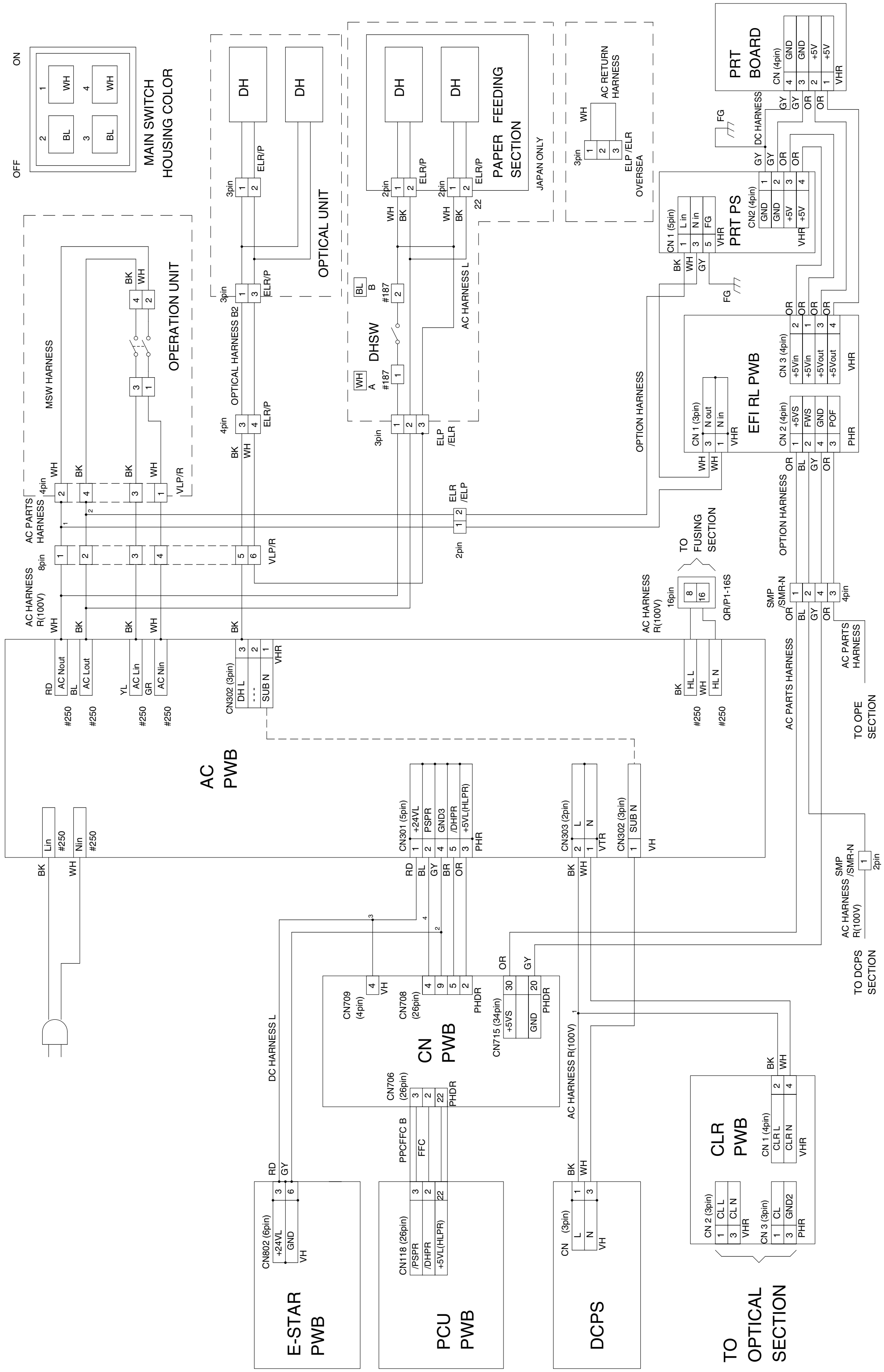
[12] BLOCK DIAGRAM

1. Overall block diagram


Printer controller
Embedded
Printer I/F PWB
CCD PWB
CCD/ICU interface PWB
*5V CCD
*12V CCD
ICU PWB (SCAN)
5V
*5V *3.3V
ICU PWB (IMAGE)
*3.3V
ICU PWB (MAIN)
*5V *3.3V
DSWF
*5V
LSU(K,C,M,Y)
Duplex unit
Connector PWB
*24V
DC FM
DM (K,C,M,Y)
DVKM
DVCM
TM (K,C,M,Y)
DL (K,C,M,Y)
Finisher unit
Sort unit
PROCESS CONTROL PWB
*24V
DMS(K,C,M,Y)
TCS(K,C,M,Y)
DESK
RADF unit
BTM
FUSM
OEMP
THS1~4
BPD
DPID
DGS
FOP
PCU SUB PWB
BELTCH1
BELTCH2
*24V
*5VL
*FWS
CPFS1~4
SPFC1~4
PED1~4
LUD1~4
LUM 1~4
LIFT CONTROL PWB (1~4)
PPWS
MTOP2
MTOP1
MPLD2
MPLD1
MPFS
MPED
OHPD
PSM
BLUM
PCU MAIN PWB
BLUD
PPD1
HUD
WTD
BPSS
PCS
CALS
LCC unit
POD
PFD PWB
IFD PWB
TRC
MPFC
PFM
*5VL *26VL *5VS
*5V *24V *5VL *26VL *FWS
OP CONTROL PWB
Inverter PWB
LCD
OPERATION PANEL
OP L/R PWB
SCANNER MOTOR PWB
ORS PD PWB
ORS LED PWB
OCSW
SCANNER MOTOR
MHPS
TFD
LSUFM
CFMI
VFM
OZFM
HVU PWB (MC)
*24V
MC (K,C,M,Y)
GB (K,C,M,Y)
DVbias (K,C,M,Y)
TC (K,C,M,Y)
HV PWB (TC)
CLR
CL
PCU SUB
AC SUB
HL1
HL2
DH
DH(PF)
DHSW
ACPS PWB
AC
AR-C100/C150/C250
DC MAIN
24V 5V 3.3V GND
DC SUB
FW 26V 5V GND
AR-C160/C270/C280
DC
24V 5V 3.3V GND FW
Energy Star relay PWB
24V 5V 3.3V GND FW
CCD PS
*5V CCD
*12V CCD
OP DCPS relay PWB
OP DCPS

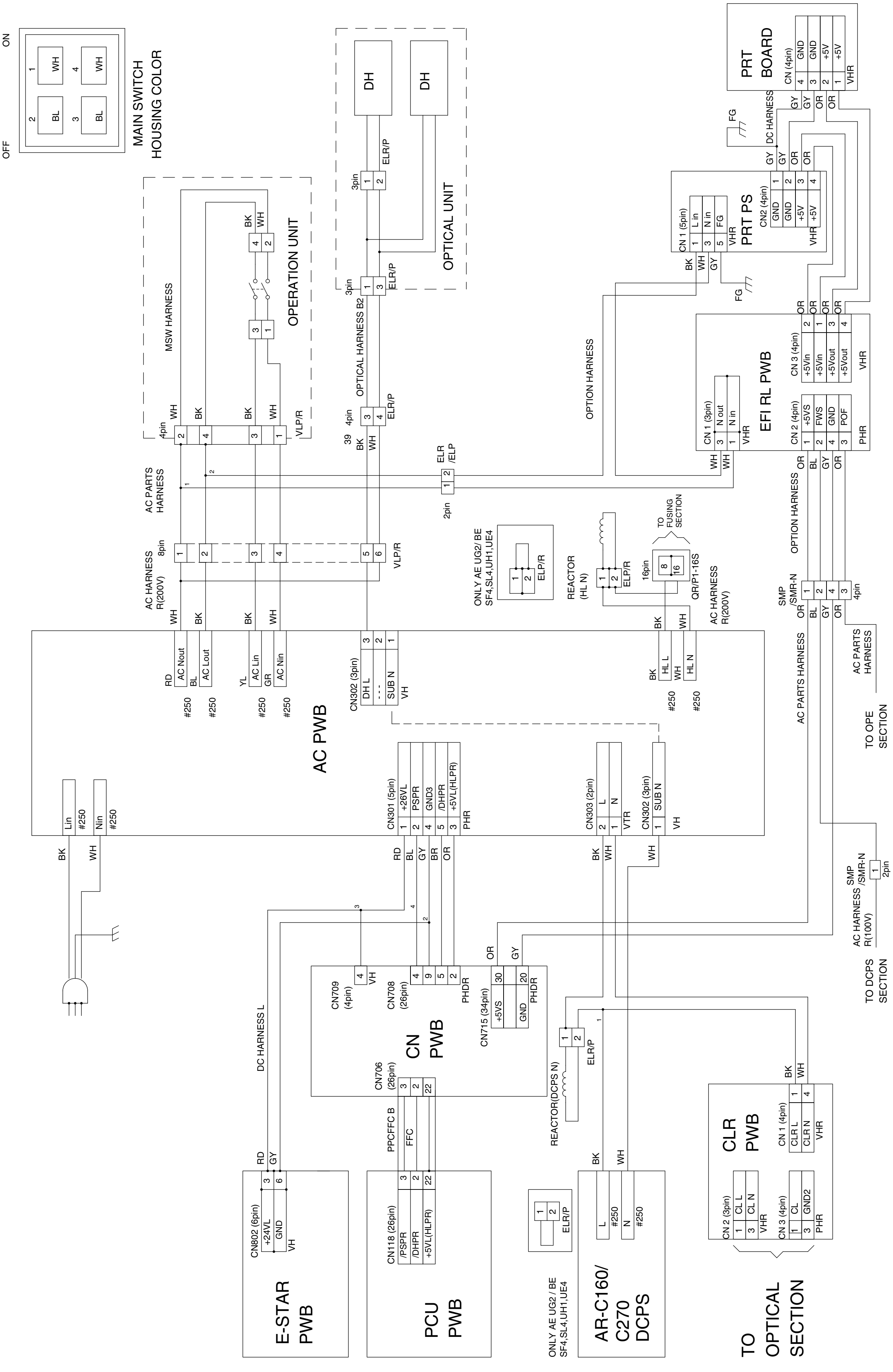
[13] ACTUAL WIRING CHART

(1) AC CIRCUIT SECTION (100V)

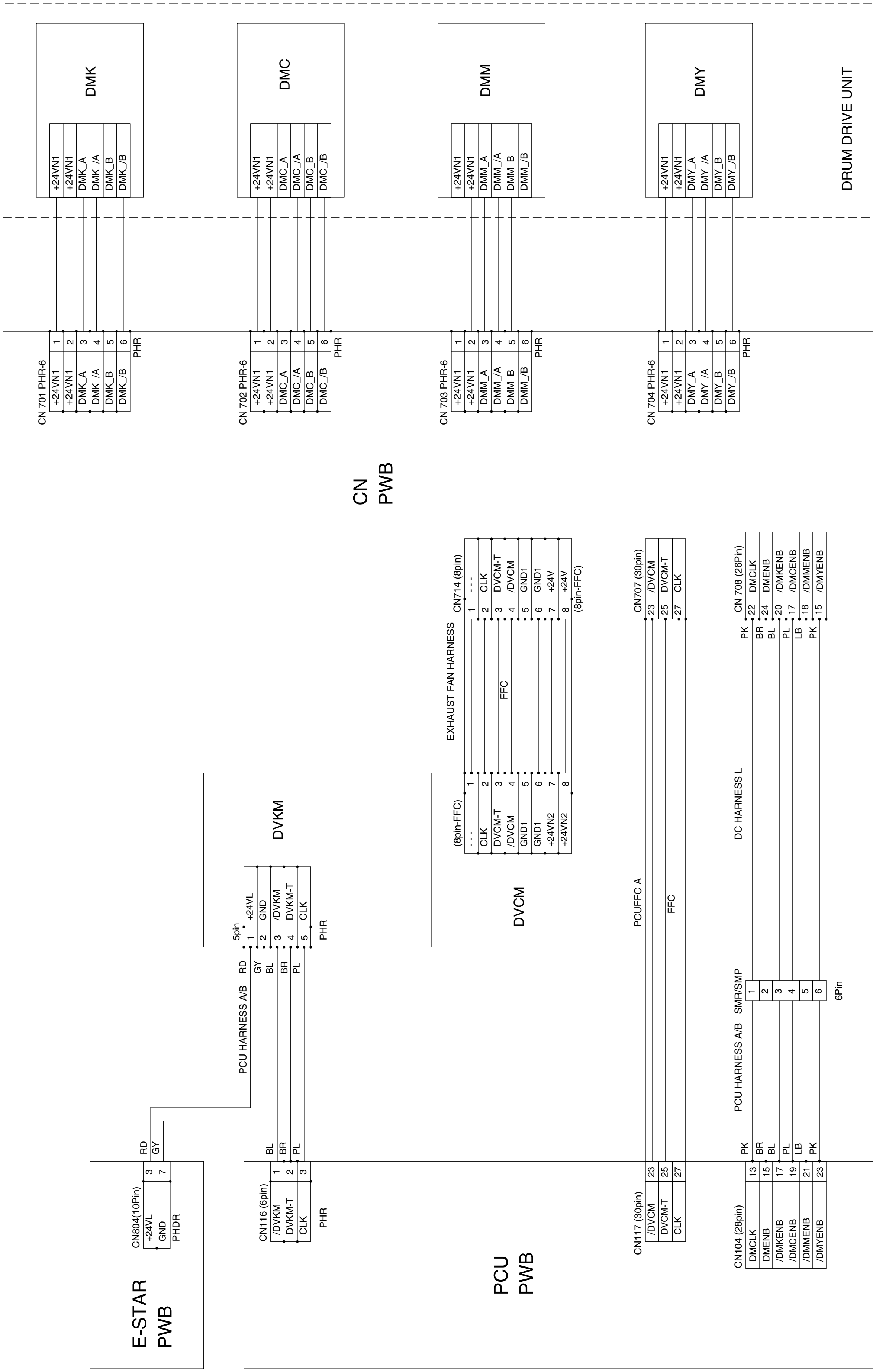


MAIN SWITCH HOUSING COLOR
ON
OFF
WH
BL
OPERATION UNIT
MSW HARNESS
OPTICAL UNIT
DH
ELR/P
OPTICAL HARNESS B2
PAPER FEEDING SECTION
JAPAN ONLY
DHSW
#187
AC HARNESS L
AC RETURN HARNESS
ELP /ELR OVERSEA
PRT BOARD
CN (4pin)
GND
+5V
VHR
DC HARNESS
FG
PRT PS
CN 1 (5pin)
L in
N in
CN2 (4pin)
EFI RL PWB
CN 1 (3pin)
N out
CN 2 (4pin)
+5VS
FWS
POF
PHR
CN 3 (4pin)
+5Vin
+5Vout
OPTION HARNESS
AC PARTS HARNESS
AC HARNESS R(100V)
VLP/R
ELR /ELP
ELP /ELR
TO FUSING SECTION
QR/P1-16S
SMP /SMR-N
TO OPE SECTION
AC PWB
AC Nout
AC Lout
AC Lin
AC Nin
#250
CN302 (3pin)
DH L
SUB N
HL L
HL N
CN301 (5pin)
+24VL
PSPR
GND3
/DHPR
+5VL(HLPR)
CN303 (2pin)
VTR
VH
Lin
Nin
TO DCPS SECTION
CN PWB
CN709 (4pin)
CN708 (26pin)
PHDR
CN715 (34pin)
+5VS
CN706 (26pin)
DC HARNESS L
AC HARNESS R(100V)
PPCFFC B
FFC
E-STAR PWB
CN802 (6pin)
GND
PCU PWB
CN118 (26pin)
/PSPR
/DHPR
DCPS
CN (3pin)
L
N
CLR PWB
CN 1 (4pin)
CLR L
CLR N
CN 2 (3pin)
CL L
CL N
CN 3 (3pin)
CL
GND2
TO OPTICAL SECTION
RD
BK
GY
BR
OR
YL
GR

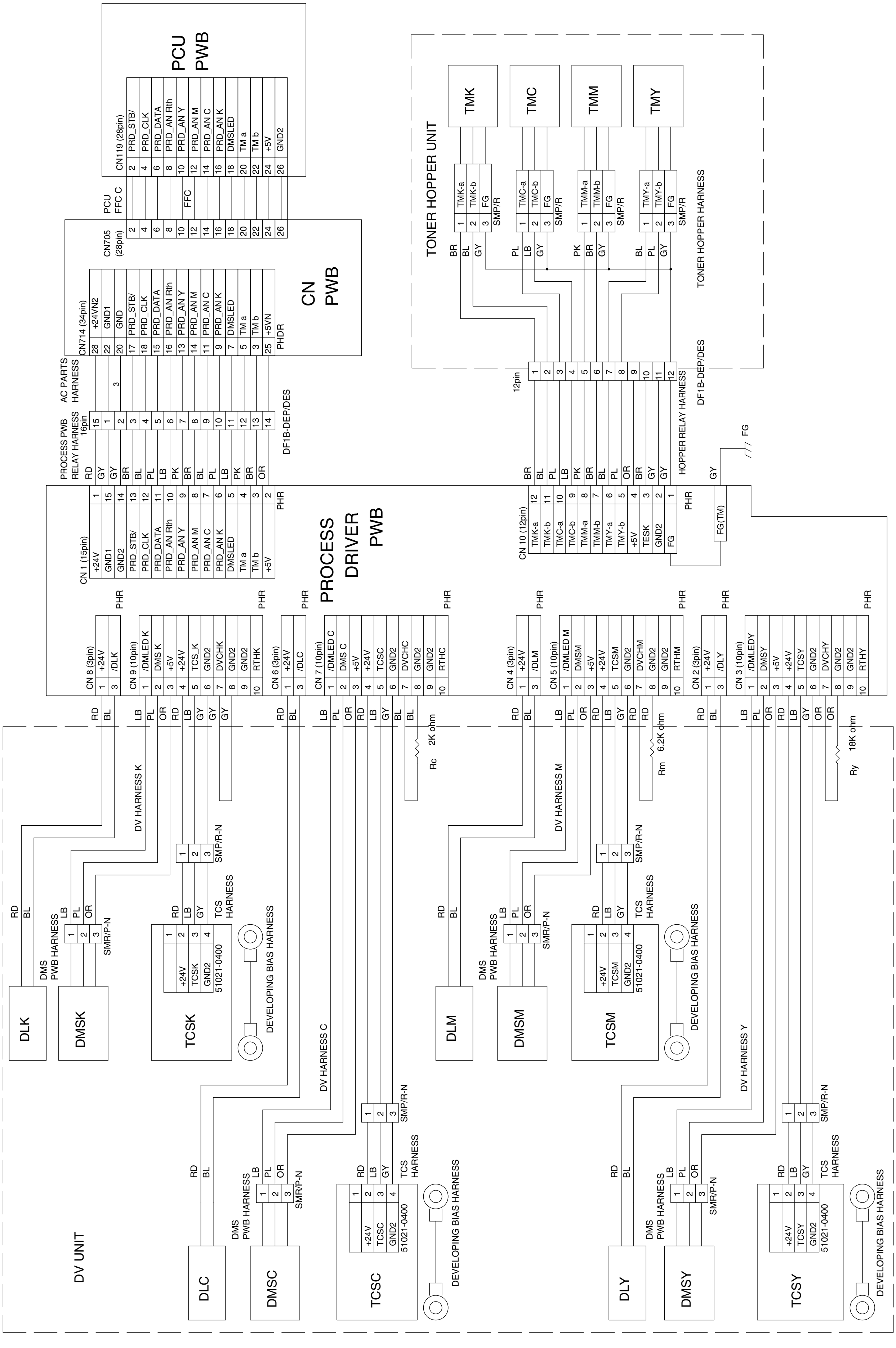
(2) AC CIRCUIT SECTION (200V)


MAIN SWITCH
HOUSING COLOR
OFF
ON
WH
BL
OPERATION UNIT
MSW HARNESS
OPTICAL UNIT
DH
ELR/P
OPTICAL HARNESS B2
PRT BOARD
CN (4pin)
GND
+5V
VHR
DC HARNESS
FG
PRT PS
CN 1 (5pin)
L in
N in
CN2 (4pin)
OPTION HARNESS
EFI RL PWB
CN 1 (3pin)
N out
CN 2 (4pin)
+5VS
FWS
POF
PHR
CN 3 (4pin)
+5Vin
+5Vout
AC PARTS HARNESS
AC HARNESS R(200V)
VLP/R
ELR /ELP
ONLY AE UG2/ BE SF4,SL4,UH1,UE4
ELP/R
REACTOR (HL N)
TO FUSING SECTION
QR/P1-16S
SMP /SMR-N
TO OPE SECTION
AC PWB
AC Nout
AC Lout
AC Lin
AC Nin
#250
CN302 (3pin)
DH L
SUB N
VH
HL L
HL N
Lin
Nin
CN301 (5pin)
+26VL
PSPR
GND3
/DHPR
+5VL(HLPR)
CN303 (2pin)
VTR
AC HARNESS R(100V)
TO DCPS SECTION
CN PWB
CN709 (4pin)
CN708 (26pin)
PHDR
CN715 (34pin)
+5VS
GND
CN706 (26pin)
DC HARNESS L
PPCFFC B
FFC
REACTOR(DCPS N)
CLR PWB
CN 1 (4pin)
CLR L
CLR N
CN 2 (3pin)
CL L
CL N
CN 3 (4pin)
CL
GND2
TO OPTICAL SECTION
E-STAR PWB
CN802 (6pin)
+24VL
PCU PWB
CN118 (26pin)
/PSPR
/DHPR
+5VL(HLPR)
AR-C160/ C270 DCPS
L
N
RD
GY
BK
OR
YL
GR
BR

(3) DRUM DRIVE SECTION

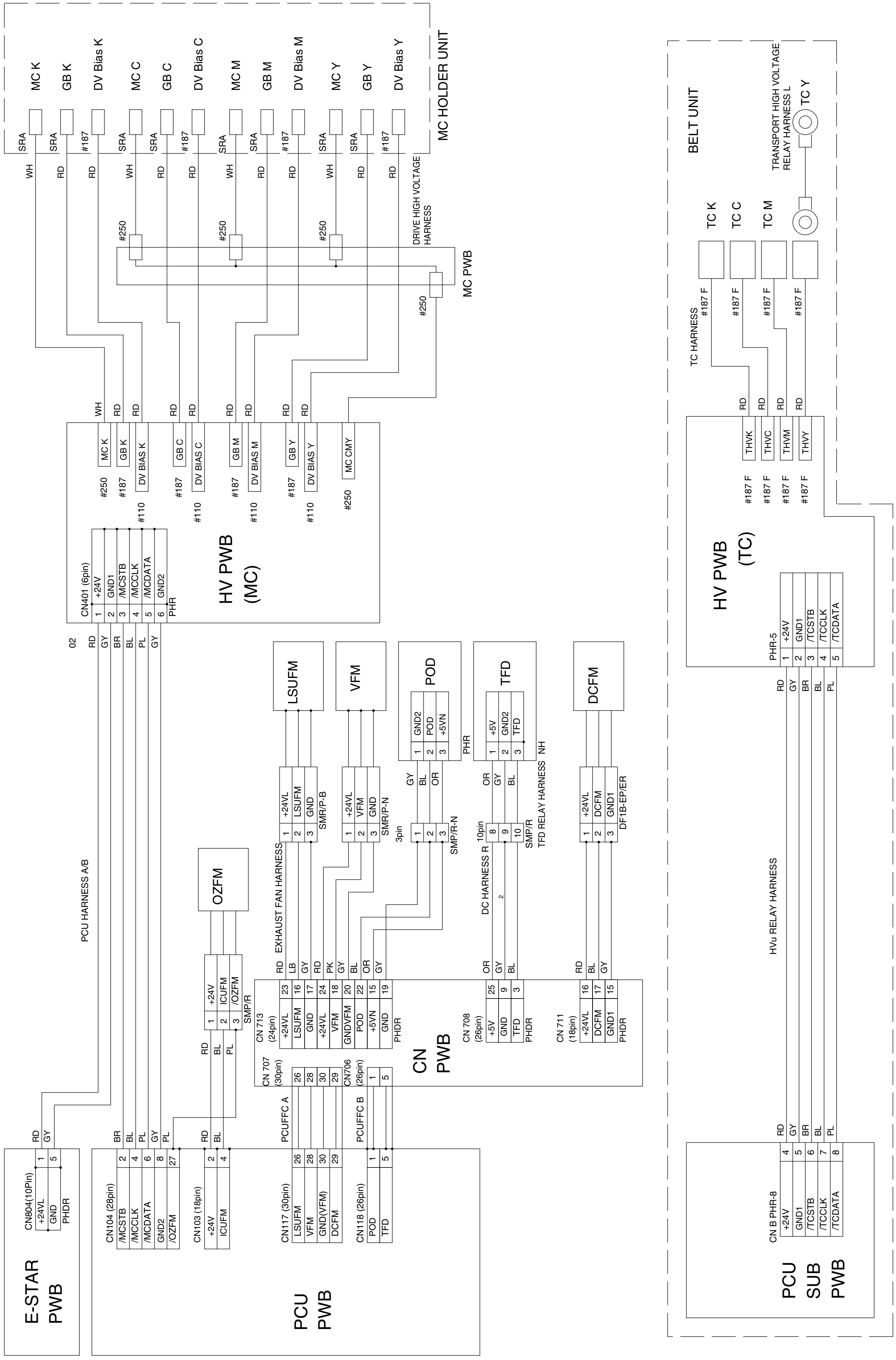

DRUM DRIVE UNIT
DMK
+24VN1
+24VN1
DMK_A
DMK_/A
DMK_B
DMK_/B
DMC
+24VN1
+24VN1
DMC_A
DMC_/A
DMC_B
DMC_/B
DMM
+24VN1
+24VN1
DMM_A
DMM_/A
DMM_B
DMM_/B
DMY
+24VN1
+24VN1
DMY_A
DMY_/A
DMY_B
DMY_/B
CN 701 PHR-6
CN 702 PHR-6
CN 703 PHR-6
CN 704 PHR-6
PHR
1
2
3
4
5
6
CN
PWB
CN714 (8pin)
- - -
CLK
DVCM-T
/DVCM
GND1
GND1
+24V
+24V
(8pin-FFC)
CN707 (30pin)
23 /DVCM
25 DVCM-T
27 CLK
CN 708 (26Pin)
22 DMCLK
24 DMENB
20 /DMKENB
17 /DMCENB
18 /DMMENB
15 /DMYENB
PK
BR
BL
PL
LB
PK
EXHAUST FAN HARNESS
FFC
DVKM
5pin
+24VL
GND
/DVKM
DVKM-T
CLK
PHR
DVCM
(8pin-FFC)
- - -
CLK
DVCM-T
/DVCM
GND1
GND1
+24VN2
+24VN2
PCUFFC A
FFC
DC HARNESS L
PCU HARNESS A/B
SMR/SMP
6Pin
RD
GY
BL
BR
PL
E-STAR
PWB
CN804(10Pin)
3 +24VL
7 GND
PHDR
PCU
PWB
CN116 (6pin)
1 /DVKM
2 DVKM-T
3 CLK
PHR
CN117 (30pin)
23 /DVCM
25 DVCM-T
27 CLK
CN104 (28pin)
13 DMCLK
15 DMENB
17 /DMKENB
19 /DMCENB
21 /DMMENB
23 /DMYENB

(4) DV, HOPPER SECTION

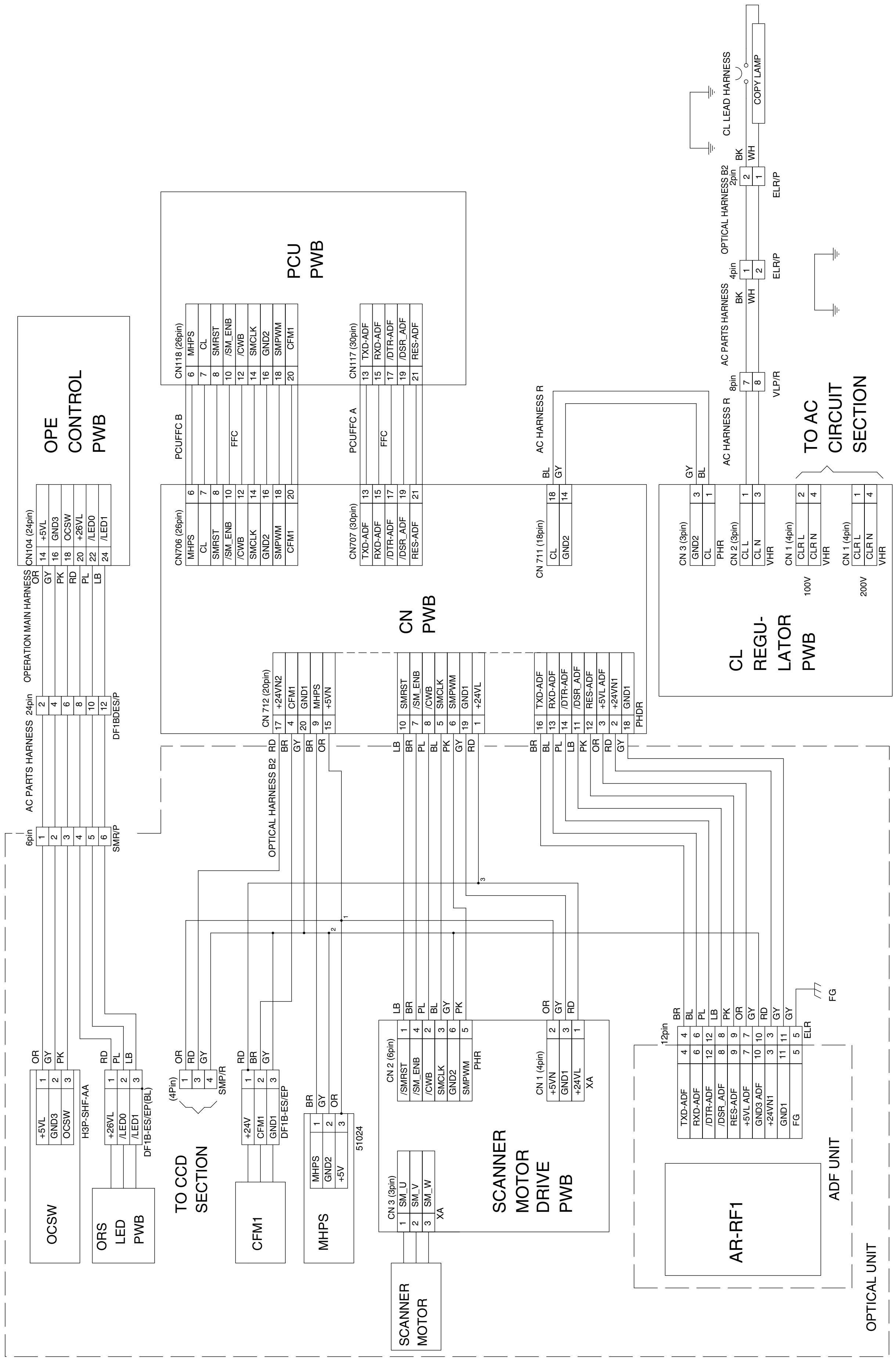


PCU PWB
CN119 (28pin)
2 PRD_STB/
4 PRD_CLK
6 PRD_DATA
8 PRD_AN Rth
10 PRD_AN Y
12 PRD_AN M
14 PRD_AN C
16 PRD_AN K
18 DMSLED
20 TM a
22 TM b
24 +5V
26 GND2
PCU FFC C
FFC
CN705 (28pin)
CN PWB
CN714 (34pin)
28 +24VN2
22 GND1
20 GND
17 PRD_STB/
18 PRD_CLK
15 PRD_DATA
16 PRD_AN Rth
13 PRD_AN Y
14 PRD_AN M
11 PRD_AN C
9 PRD_AN K
7 DMSLED
5 TM a
3 TM b
25 +5VN
PHDR
AC PARTS HARNESS
PROCESS PWB RELAY HARNESS 16pin
DF1B-DEP/DES
PROCESS DRIVER PWB
CN 1 (15pin)
1 +24V
15 GND1
14 GND2
13 PRD_STB/
12 PRD_CLK
11 PRD_DATA
10 PRD_AN Rth
9 PRD_AN Y
8 PRD_AN M
7 PRD_AN C
6 PRD_AN K
5 DMSLED
4 TM a
3 TM b
2 +5V
PHR
TONER HOPPER UNIT
TMK
TMC
TMM
TMY
TMK-a TMK-b FG SMP/R
TMC-a TMC-b FG SMP/R
TMM-a TMM-b FG SMP/R
TMY-a TMY-b FG SMP/R
TONER HOPPER HARNESS
12pin
DF1B-DEP/DES
HOPPER RELAY HARNESS
CN 10 (12pin)
12 TMK-a
11 TMK-b
10 TMC-a
9 TMC-b
8 TMM-a
7 TMM-b
6 TMY-a
5 TMY-b
4 +5V
3 TESK
2 GND2
1 FG
FG(TM)
FG
CN 8 (3pin) 1 +24V 3 /DLK
CN 9 (10pin) 1 /DMLED K 2 DMS K 3 +5V 4 +24V 5 TCS_K 6 GND2 7 DVCHK 8 GND2 9 GND2 10 RTHK
CN 6 (3pin) 1 +24V 3 /DLC
CN 7 (10pin) 1 /DMLED C 2 DMS C 3 +5V 4 +24V 5 TCSC 6 GND2 7 DVCHC 8 GND2 9 GND2 10 RTHC
CN 4 (3pin) 1 +24V 3 /DLM
CN 5 (10pin) 1 /DMLED M 2 DMSM 3 +5V 4 +24V 5 TCSM 6 GND2 7 DVCHM 8 GND2 9 GND2 10 RTHM
CN 2 (3pin) 1 +24V 3 /DLY
CN 3 (10pin) 1 /DMLEDY 2 DMSY 3 +5V 4 +24V 5 TCSY 6 GND2 7 DVCHY 8 GND2 9 GND2 10 RTHY
Rc 2K ohm
Rm 6.2K ohm
Ry 18K ohm
DV HARNESS K
DV HARNESS C
DV HARNESS M
DV HARNESS Y
SMP/R-N
SMR/P-N
DMS PWB HARNESS
TCS HARNESS
DEVELOPING BIAS HARNESS
DLK
DMSK
TCSK
+24V TCSK GND2 51021-0400
DLC
DMSC
TCSC
+24V TCSC GND2 51021-0400
DLM
DMSM
TCSM
+24V TCSM GND2 51021-0400
DLY
DMSY
TCSY
+24V TCSY GND2 51021-0400
DV UNIT
RD BL LB PL OR GY BR PK

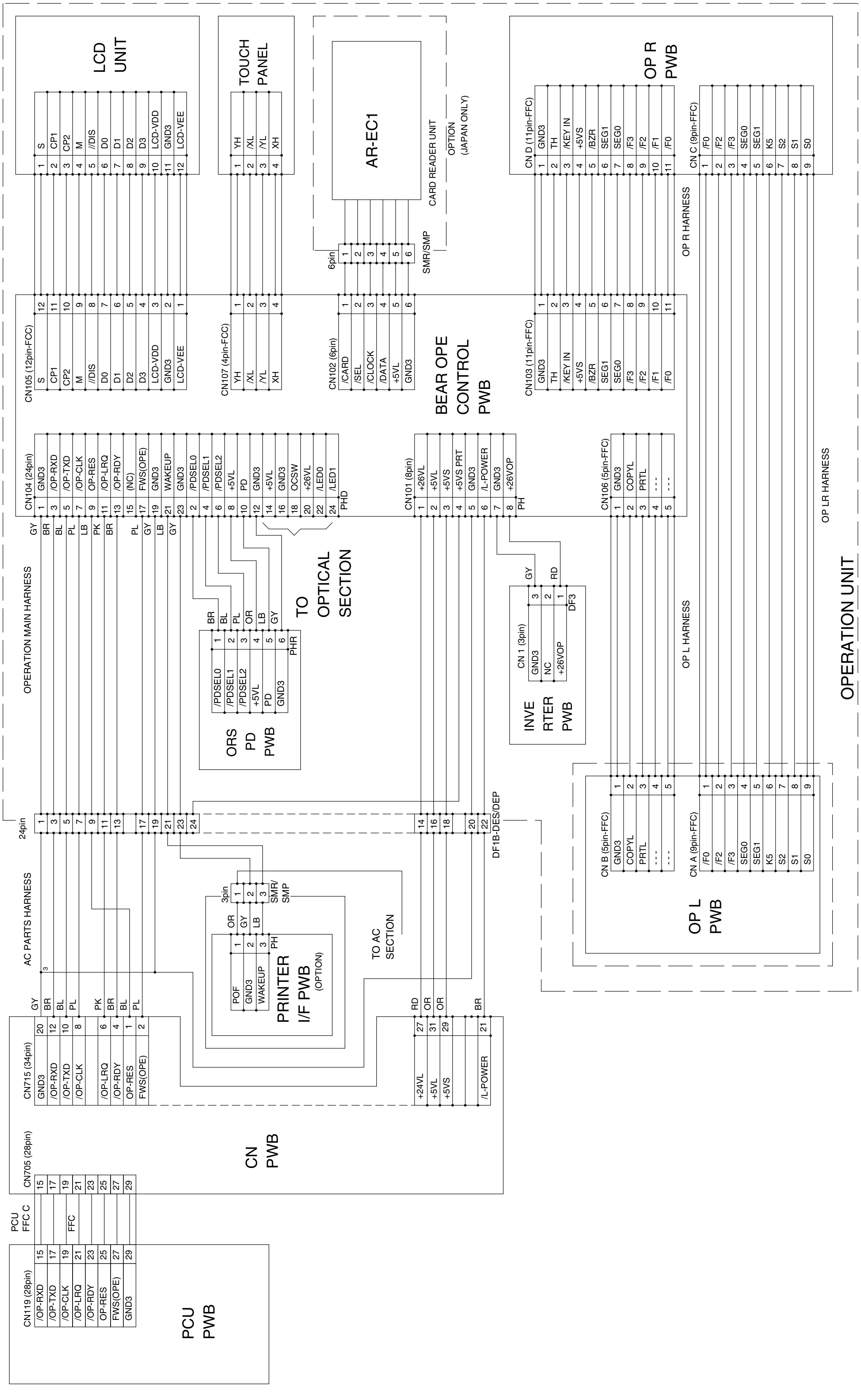
(5) PROCESS SECTION


MC HOLDER UNIT
MC K
GB K
DV Bias K
MC C
GB C
DV Bias C
MC M
GB M
DV Bias M
MC Y
GB Y
DV Bias Y
SRA
#187
#250
DRIVE HIGH VOLTAGE HARNESS
MC PWB
HV PWB (MC)
CN401 (6pin)
+24V
GND1
/MCSTB
/MCCLK
/MCDATA
GND2
PHR
MC K
GB K
DV BIAS K
GB C
DV BIAS C
GB M
DV BIAS M
GB Y
DV BIAS Y
MC CMY
#110
PCU HARNESS A/B
OZFM
LSUFM
VFM
POD
TFD
DCFM
EXHAUST FAN HARNESS
SMR/P-B
SMR/P-N
SMP/R-N
3pin
DC HARNESS R
10pin
SMP/R
TFD RELAY HARNESS
NH
DF1B-EP/ER
CN PWB
CN 713 (24pin)
CN 708 (26pin)
CN 711 (18pin)
CN 707 (30pin)
CN706 (26pin)
PHDR
PCUFFC A
PCUFFC B
E-STAR PWB
CN804(10Pin)
+24VL
GND
PCU PWB
CN104 (28pin)
/MCSTB
/MCCLK
/MCDATA
GND2
/OZFM
CN103 (18pin)
+24V
ICUFM
CN117 (30pin)
LSUFM
VFM
GND(VFM)
DCFM
CN118 (26pin)
POD
TFD
BELT UNIT
TC K
TC C
TC M
TC Y
TRANSPORT HIGH VOLTAGE RELAY HARNESS L
TC HARNESS
#187 F
HV PWB (TC)
THVK
THVC
THVM
THVY
PHR-5
/TCSTB
/TCCLK
/TCDATA
HVu RELAY HARNESS
PCU SUB PWB
CN B PHR-8
WH
RD
GY
BR
BL
PL
LB
PK
OR

(6) OPTICAL UNIT

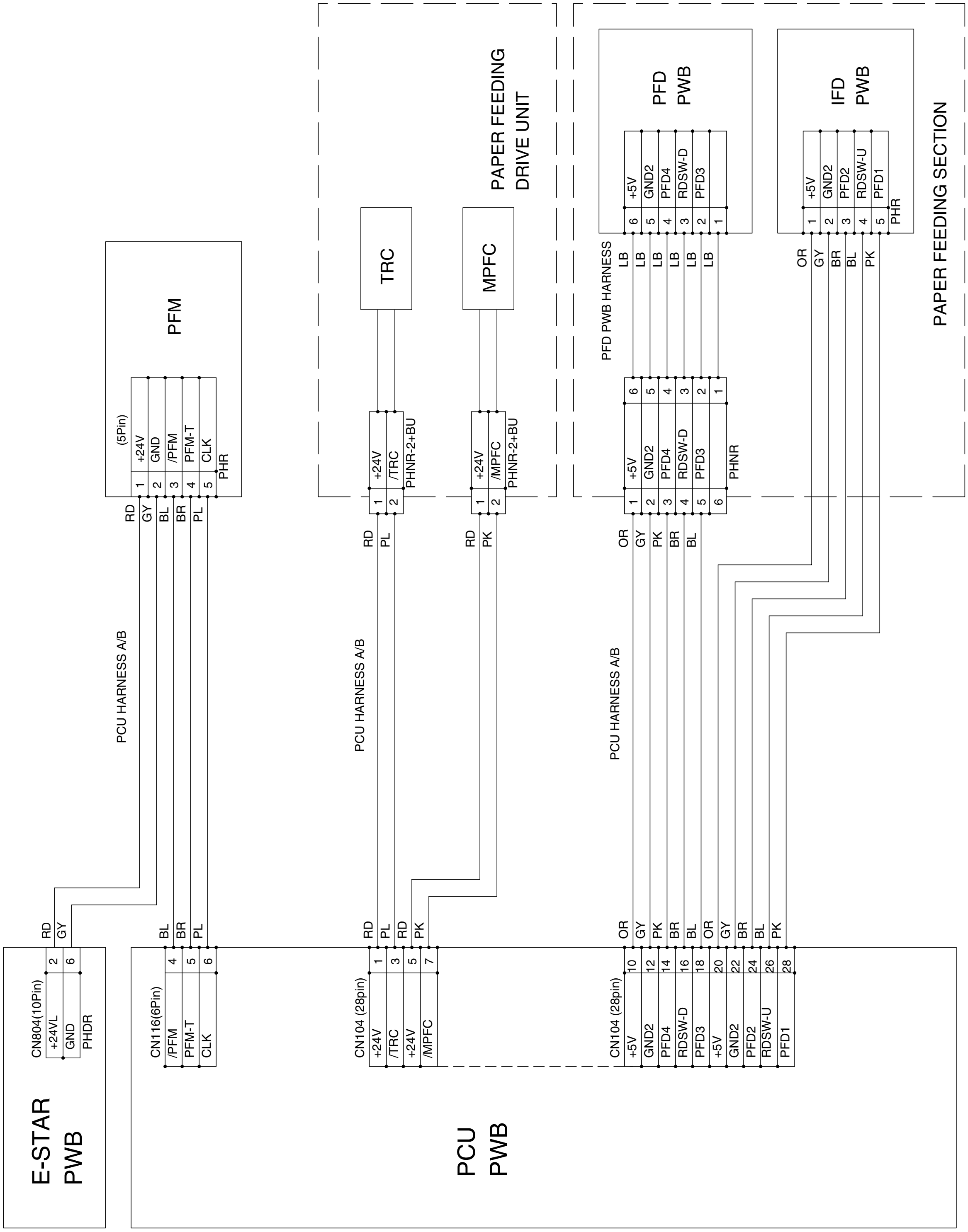

OPE CONTROL PWB
CN104 (24pin)
+5VL
GND3
OCSW
+26VL
/LED0
/LED1
OPERATION MAIN HARNESS
AC PARTS HARNESS 24pin
DF1BDES/P
AC PARTS HARNESS 6pin
SMR/P
PCU PWB
CN118 (26pin)
MHPS
CL
SMRST
/SM_ENB
/CWB
SMCLK
GND2
SMPWM
CFM1
CN117 (30pin)
TXD-ADF
RXD-ADF
/DTR-ADF
/DSR_ADF
RES-ADF
PCUFFC B
PCUFFC A
FFC
CN PWB
CN706 (26pin)
CN707 (30pin)
CN 711 (18pin)
CN 712 (20pin)
+24VN2
GND1
+5VN
+24VL
+5VL ADF
+24VN1
PHDR
AC HARNESS R
OPTICAL HARNESS B2
CL REGU-LATOR PWB
CN 3 (3pin)
CN 2 (3pin)
CL L
CL N
VHR
PHR
CN 1 (4pin)
CLR L
CLR N
100V
200V
TO AC CIRCUIT SECTION
AC PARTS HARNESS 8pin
VLP/R
AC PARTS HARNESS 4pin
ELR/P
OPTICAL HARNESS B2 2pin
CL LEAD HARNESS
COPY LAMP
OCSW
H3P-SHF-AA
ORS LED PWB
DF1B-ES/EP(BL)
TO CCD SECTION
(4Pin)
SMP/R
CFM1
DF1B-ES/EP
MHPS
51024
SCANNER MOTOR DRIVE PWB
CN 2 (6pin)
CN 1 (4pin)
CN 3 (3pin)
SM_U
SM_V
SM_W
XA
SCANNER MOTOR
AR-RF1
ADF UNIT
12pin
GND3 ADF
FG
ELR
OPTICAL UNIT
OR
GY
PK
RD
PL
LB
BR
BL
BK
WH

(7) OPERATION UNIT

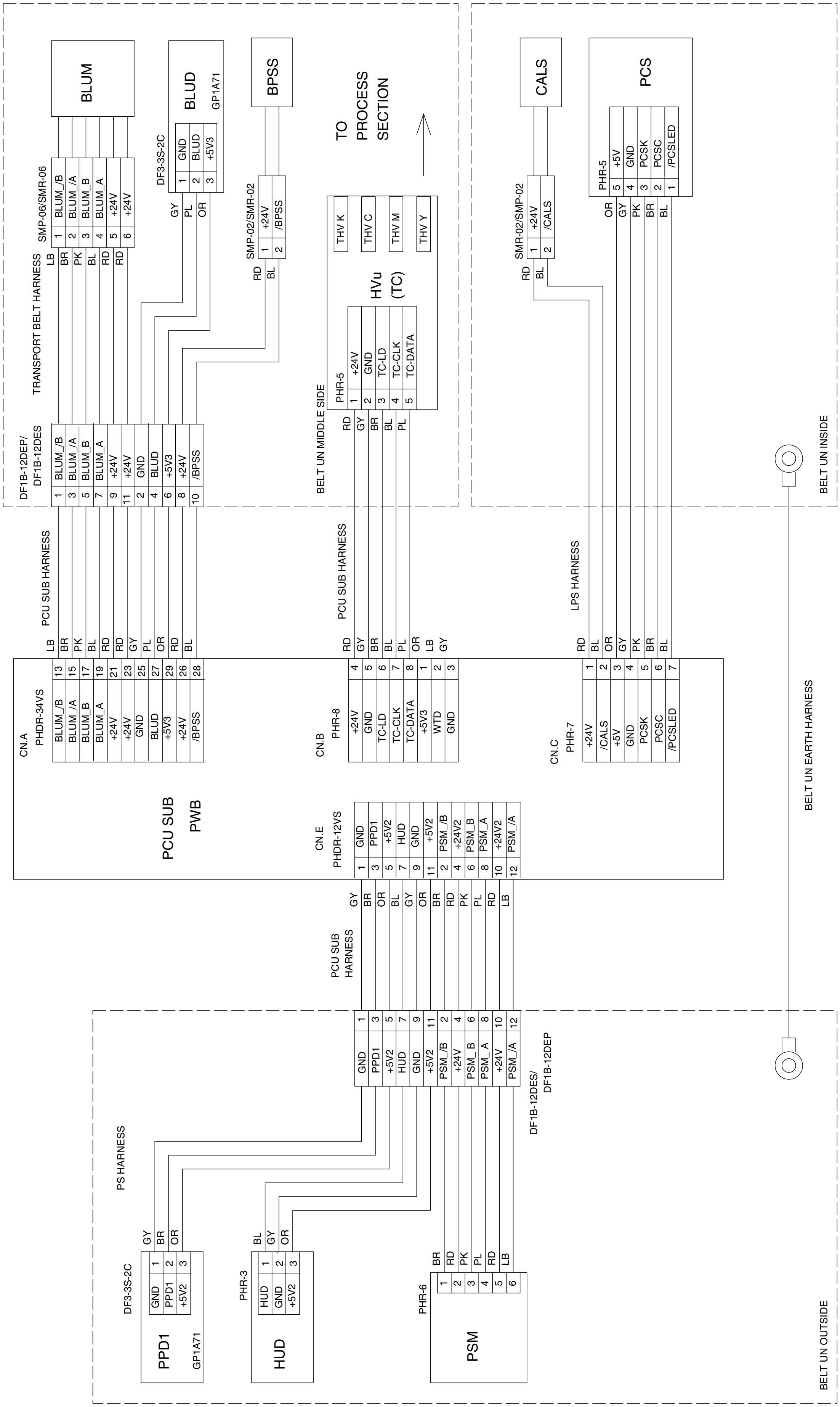


LCD UNIT
1 S 2 CP1 3 CP2 4 M 5 //DIS 6 D0 7 D1 8 D2 9 D3 10 LCD-VDD 11 GND3 12 LCD-VEE
TOUCH PANEL
1 YH 2 /XL 3 /YL 4 XH
AR-EC1
CARD READER UNIT
OPTION (JAPAN ONLY)
6pin
SMR/SMP
OP R PWB
CN D (11pin-FFC)
1 GND3 2 TH 3 /KEY IN 4 +5VS 5 /BZR 6 SEG1 7 SEG0 8 /F3 9 /F2 10 /F1 11 /F0
CN C (9pin-FFC)
1 /F0 2 /F2 3 /F3 4 SEG0 5 SEG1 6 K5 7 S2 8 S1 9 S0
OP R HARNESS
BEAR OPE CONTROL PWB
CN105 (12pin-FCC)
S CP1 CP2 M //DIS D0 D1 D2 D3 LCD-VDD GND3 LCD-VEE
CN107 (4pin-FCC)
YH /XL /YL XH
CN102 (6pin)
/CARD /SEL /CLOCK /DATA +5VL GND3
CN103 (11pin-FFC)
GND3 TH /KEY IN +5VS /BZR SEG1 SEG0 /F3 /F2 /F1 /F0
CN104 (24pin)
1 GND3 3 /OP-RXD 5 /OP-TXD 7 /OP-CLK 9 OP-RES 11 /OP-LRQ 13 /OP-RDY 15 (NC) 17 FWS(OPE) 19 GND3 21 WAKEUP 23 GND3 2 /PDSEL0 4 /PDSEL1 6 /PDSEL2 8 +5VL 10 PD 12 GND3 14 +5VL 16 GND3 18 OCSW 20 +26VL 22 /LED0 24 /LED1
PHD
CN101 (8pin)
1 +26VL 2 +5VL 3 +5VS 4 +5VS PRT 5 GND3 6 /L-POWER 7 GND3 8 +26VOP
PH
CN106 (5pin-FFC)
1 GND3 2 COPYL 3 PRTL 4 - - - 5 - - -
OP LR HARNESS
OPERATION UNIT
TO OPTICAL SECTION
ORS PD PWB
/PDSEL0 /PDSEL1 /PDSEL2 +5VL PD GND3
PHR
INVE RTER PWB
CN 1 (3pin)
GND3 NC +26VOP
DF3
GY RD
OP L HARNESS
OP L PWB
CN B (5pin-FFC)
GND3 COPYL PRTL - - - - - -
CN A (9pin-FFC)
/F0 /F2 /F3 SEG0 SEG1 K5 S2 S1 S0
OPERATION MAIN HARNESS
AC PARTS HARNESS
24pin
DF1B-DES/DEP
3pin
SMR/ SMP
PRINTER I/F PWB (OPTION)
POF GND3 WAKEUP
OR GY LB
TO AC SECTION
CN PWB
CN715 (34pin)
20 GND3 12 /OP-RXD 10 /OP-TXD 8 /OP-CLK 6 /OP-LRQ 4 /OP-RDY 1 OP-RES 2 FWS(OPE)
27 +24VL 31 +5VL 29 +5VS 21 /L-POWER
CN705 (28pin)
15 17 19 21 23 25 27 29
PCU FFC C
FFC
PCU PWB
CN119 (28pin)
15 /OP-RXD 17 /OP-TXD 19 /OP-CLK 21 /OP-LRQ 23 /OP-RDY 25 OP-RES 27 FWS(OPE) 29 GND3
GY BR BL PL LB PK BR PL GY LB GY
RD OR OR BR

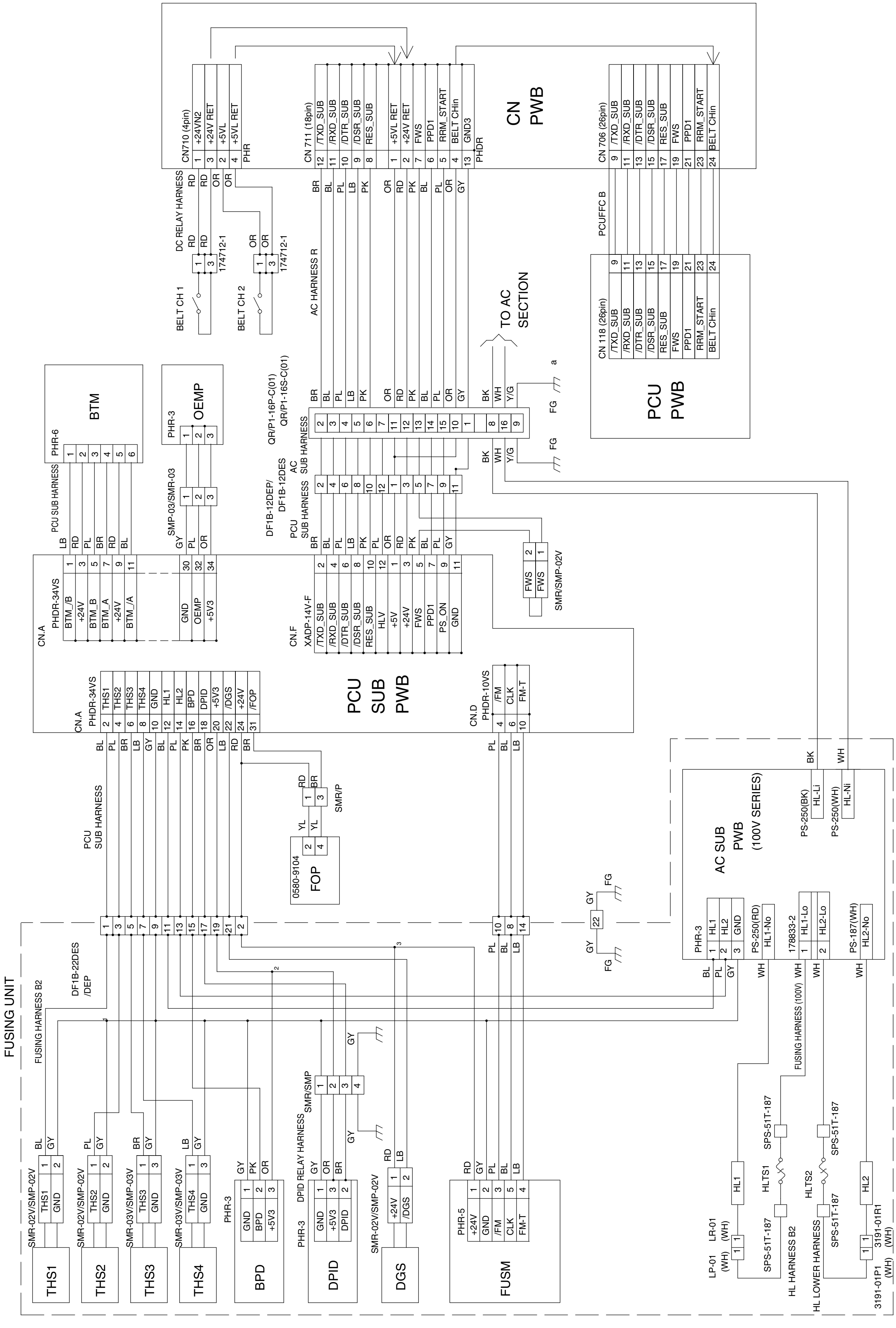
(8) TRANSPORT UNIT


E-STAR PWB
CN804(10Pin)
+24VL
GND
PHDR
2
6
RD
GY
PCU PWB
CN116(6Pin)
/PFM
PFM-T
CLK
4
5
6
BL
BR
PL
CN104 (28pin)
+24V
/TRC
+24V
/MPFC
1
3
5
7
RD
PL
RD
PK
CN104 (28pin)
+5V
GND2
PFD4
RDSW-D
PFD3
+5V
GND2
PFD2
RDSW-U
PFD1
10
12
14
16
18
20
22
24
26
28
OR
GY
PK
BR
BL
OR
GY
BR
BL
PK
PCU HARNESS A/B
PCU HARNESS A/B
PCU HARNESS A/B
PFM
(5Pin)
+24V
GND
/PFM
PFM-T
CLK
PHR
1
2
3
4
5
RD
GY
BL
BR
PL
PAPER FEEDING DRIVE UNIT
TRC
+24V
/TRC
PHNR-2+BU
1
2
RD
PL
MPFC
+24V
/MPFC
PHNR-2+BU
1
2
RD
PK
PAPER FEEDING SECTION
PFD PWB
+5V
GND2
PFD4
RDSW-D
PFD3
6
5
4
3
2
1
PFD PWB HARNESS
LB
LB
LB
LB
LB
LB
6
5
4
3
2
1
+5V
GND2
PFD4
RDSW-D
PFD3
PHNR
1
2
3
4
5
6
OR
GY
PK
BR
BL
IFD PWB
+5V
GND2
PFD2
RDSW-U
PFD1
PHR
1
2
3
4
5
OR
GY
BR
BL
PK

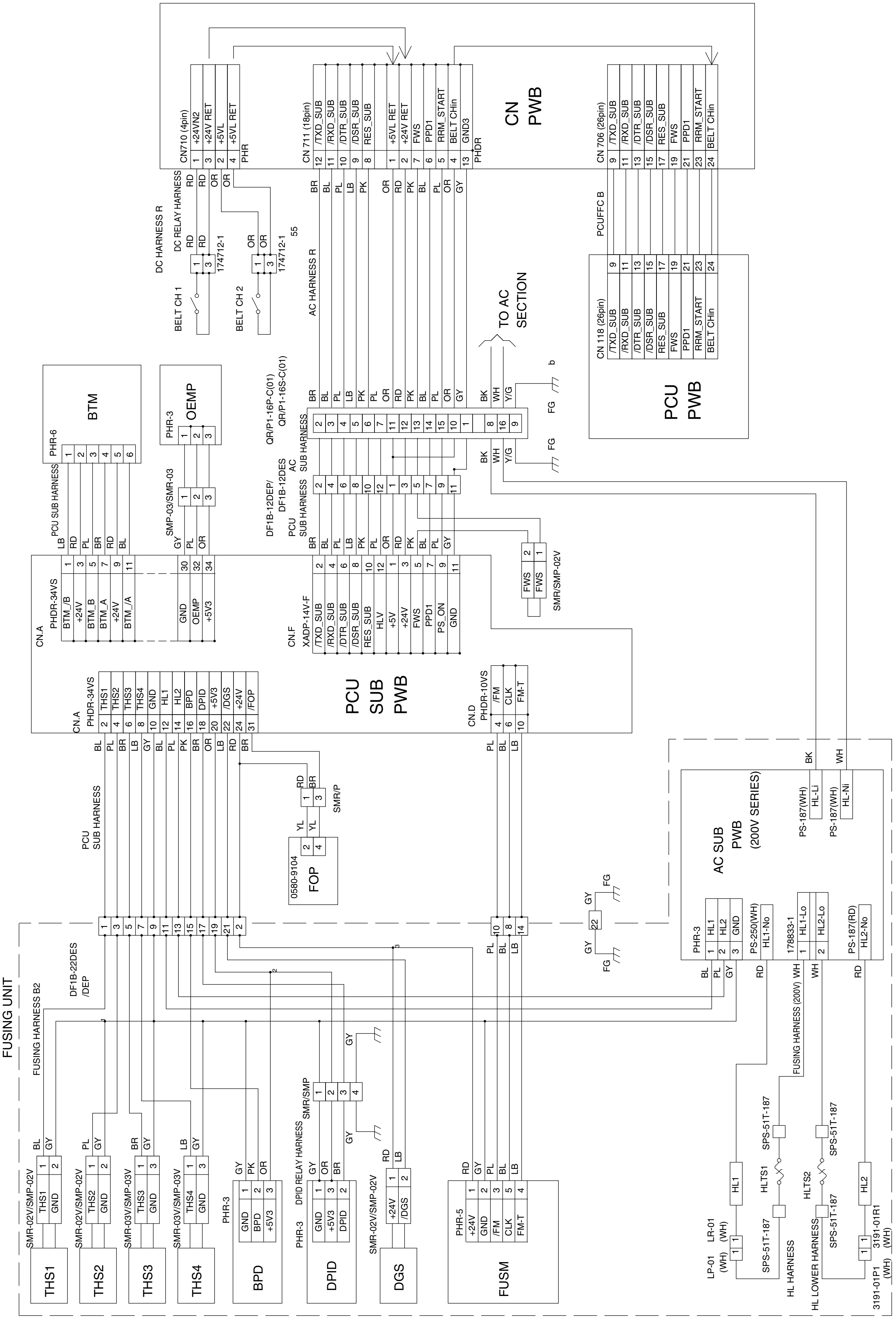
(9) TRANSPORT BELT SECTION


BLUM
BLUD
GP1A71
BPSS
TO PROCESS SECTION
CALS
PCS
SMP-06/SMR-06
TRANSPORT BELT HARNESS
DF3-3S-2C
SMP-02/SMR-02
SMR-02/SMP-02
PHR-5
THV K
THV C
THV M
THV Y
HVu (TC)
DF1B-12DEP/ DF1B-12DES
BELT UN MIDDLE SIDE
BELT UN INSIDE
PCU SUB HARNESS
LPS HARNESS
CN.A PHDR-34VS
CN.B PHR-8
CN.C PHR-7
CN.E PHDR-12VS
PCU SUB PWB
BELT UN EARTH HARNESS
PCU SUB HARNESS
DF1B-12DES/ DF1B-12DEP
PS HARNESS
PPD1
HUD
PHR-3
PSM
PHR-6
BELT UN OUTSIDE
BLUM_/B
BLUM_/A
BLUM_B
BLUM_A
+24V
GND
BLUD
+5V3
/BPSS
TC-LD
TC-CLK
TC-DATA
WTD
/CALS
+5V
PCSK
PCSC
/PCSLED
PPD1
+5V2
PSM_/B
+24V2
PSM_B
PSM_A
PSM_/A
LB
BR
PK
BL
RD
GY
PL
OR

(10) FUSING UNIT (100V)

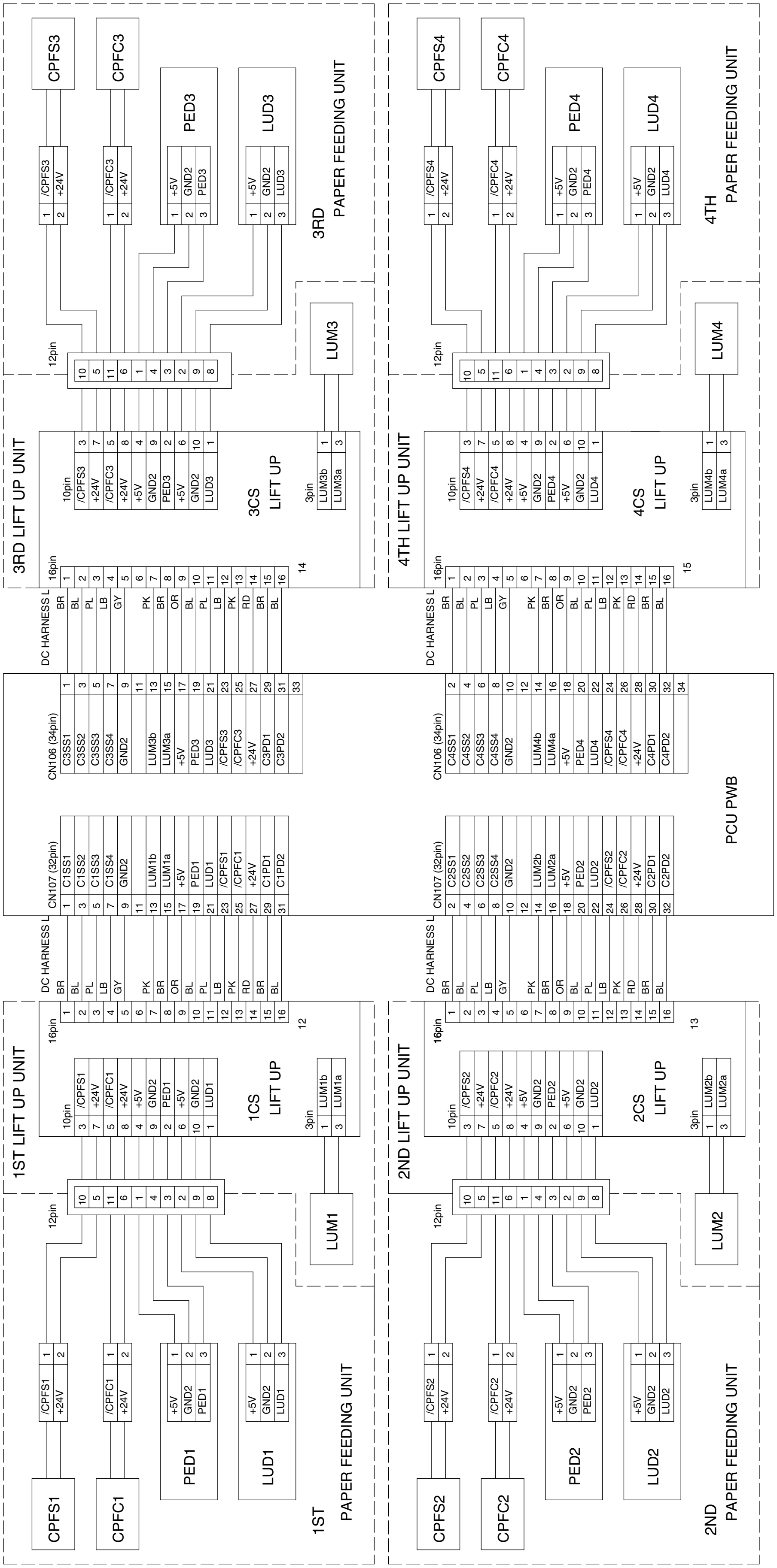

CN PWB
CN710 (4pin)
1 +24VN2
3 +24V RET
2 +5VL
4 +5VL RET
PHR
CN 711 (18pin)
12 /TXD_SUB
11 /RXD_SUB
10 /DTR_SUB
9 /DSR_SUB
8 RES_SUB
1 +5VL RET
2 +24V RET
7 FWS
6 PPD1
5 RRM_START
4 BELT CHin
13 GND3
PHDR
CN 706 (26pin)
9 /TXD_SUB
11 /RXD_SUB
13 /DTR_SUB
15 /DSR_SUB
17 RES_SUB
19 FWS
21 PPD1
23 RRM_START
24 BELT CHin
DC RELAY HARNESS
174712-1
BELT CH 1
BELT CH 2
AC HARNESS R
PCUFFC B
PCU PWB
CN 118 (26pin)
TO AC SECTION
FG
a
QR/P1-16P-C(01)
QR/P1-16S-C(01)
AC SUB HARNESS
DF1B-12DEP/ DF1B-12DES
PCU SUB HARNESS
BTM
PHR-6
OEMP
PHR-3
SMP-03/SMR-03
FWS
SMR/SMP-02V
CN.A
PHDR-34VS
BTM_/B
+24V
BTM_B
BTM_A
BTM_/A
GND
OEMP
+5V3
CN.F
XADP-14V-F
/TXD_SUB
/RXD_SUB
/DTR_SUB
/DSR_SUB
RES_SUB
HLV
+5V
+24V
FWS
PPD1
PS_ON
GND
PCU SUB PWB
THS1
THS2
THS3
THS4
HL1
HL2
BPD
DPID
/DGS
/FOP
CN.D
PHDR-10VS
/FM
CLK
FM-T
SMR/P
FOP
0580-9104
AC SUB PWB (100V SERIES)
PS-250(BK) HL-Li
PS-250(WH) HL-Ni
PS-250(RD) HL1-No
178833-2
HL1-Lo
HL2-Lo
PS-187(WH) HL2-No
FUSING UNIT
FUSING HARNESS B2
DF1B-22DES /DEP
SMR-02V/SMP-02V
SMR-03V/SMP-03V
DPID RELAY HARNESS
SMR/SMP
PHR-5
DGS
FUSM
+24V
GND
CLK
FM-T
+5V3
FUSING HARNESS (100V)
SPS-51T-187
HLTS1
HLTS2
HL HARNESS B2
HL LOWER HARNESS
LP-01 (WH)
LR-01 (WH)
3191-01P1 (WH)
3191-01R1 (WH)
RD
OR
BR
BL
PL
LB
PK
GY
BK
WH
Y/G
YL

(11) FUSING UNIT (200V)

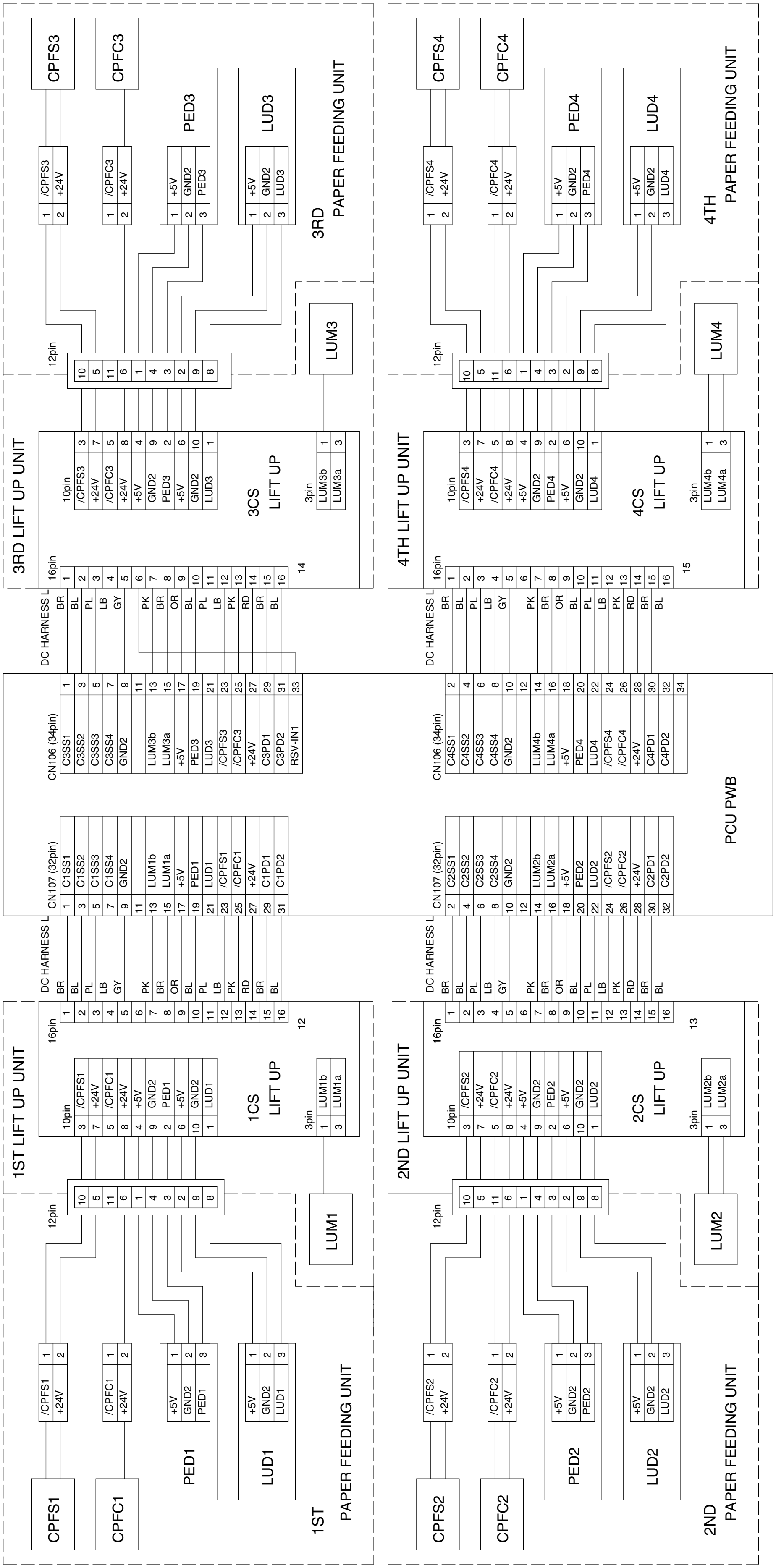

CN PWB
CN710 (4pin)
1 +24VN2
3 +24V RET
2 +5VL
4 +5VL RET
PHR
CN 711 (18pin)
12 /TXD_SUB
11 /RXD_SUB
10 /DTR_SUB
9 /DSR_SUB
8 RES_SUB
1 +5VL RET
2 +24V RET
7 FWS
6 PPD1
5 RRM_START
4 BELT CHin
13 GND3
PHDR
CN 706 (26pin)
9 /TXD_SUB
11 /RXD_SUB
13 /DTR_SUB
15 /DSR_SUB
17 RES_SUB
19 FWS
21 PPD1
23 RRM_START
24 BELT CHin
PCUFFC B
PCU PWB
CN 118 (26pin)
/TXD_SUB
/RXD_SUB
/DTR_SUB
/DSR_SUB
RES_SUB
FWS
PPD1
RRM_START
BELT CHin
DC HARNESS R
DC RELAY HARNESS
174712-1
55
BELT CH 1
BELT CH 2
AC HARNESS R
TO AC SECTION
FG
b
QR/P1-16P-C(01)
QR/P1-16S-C(01)
AC SUB HARNESS
DF1B-12DEP/
DF1B-12DES
PCU SUB HARNESS
BTM
PHR-6
OEMP
PHR-3
PCU SUB HARNESS
SMP-03/SMR-03
FWS
SMR/SMP-02V
CN.A
PHDR-34VS
BTM_/B
+24V
BTM_B
BTM_A
BTM_/A
GND
OEMP
+5V3
CN.F
XADP-14V-F
/TXD_SUB
/RXD_SUB
/DTR_SUB
/DSR_SUB
RES_SUB
HLV
+5V
+24V
FWS
PPD1
PS_ON
GND
PCU SUB PWB
CN.A
PHDR-34VS
THS1
THS2
THS3
THS4
GND
HL1
HL2
BPD
DPID
+5V3
/DGS
+24V
/FOP
CN.D
PHDR-10VS
/FM
CLK
FM-T
SMR/P
0580-9104
FOP
AC SUB PWB (200V SERIES)
PS-187(WH)
HL-Li
HL-Ni
PHR-3
HL1
HL2
GND
PS-250(WH)
HL1-No
178833-1
HL1-Lo
HL2-Lo
PS-187(RD)
HL2-No
FUSING UNIT
FUSING HARNESS B2
DF1B-22DES
/DEP
FUSING HARNESS (200V)
SMR-02V/SMP-02V
THS1
GND
THS2
SMR-03V/SMP-03V
THS3
THS4
PHR-3
BPD
+5V3
DPID RELAY HARNESS
SMR/SMP
DPID
DGS
+24V
/DGS
PHR-5
FUSM
/FM
CLK
FM-T
HL1
HLTS1
HLTS2
HL2
SPS-51T-187
LP-01 (WH)
LR-01 (WH)
HL HARNESS
HL LOWER HARNESS
3191-01P1 (WH)
3191-01R1 (WH)

(12) LIFT UP UNIT

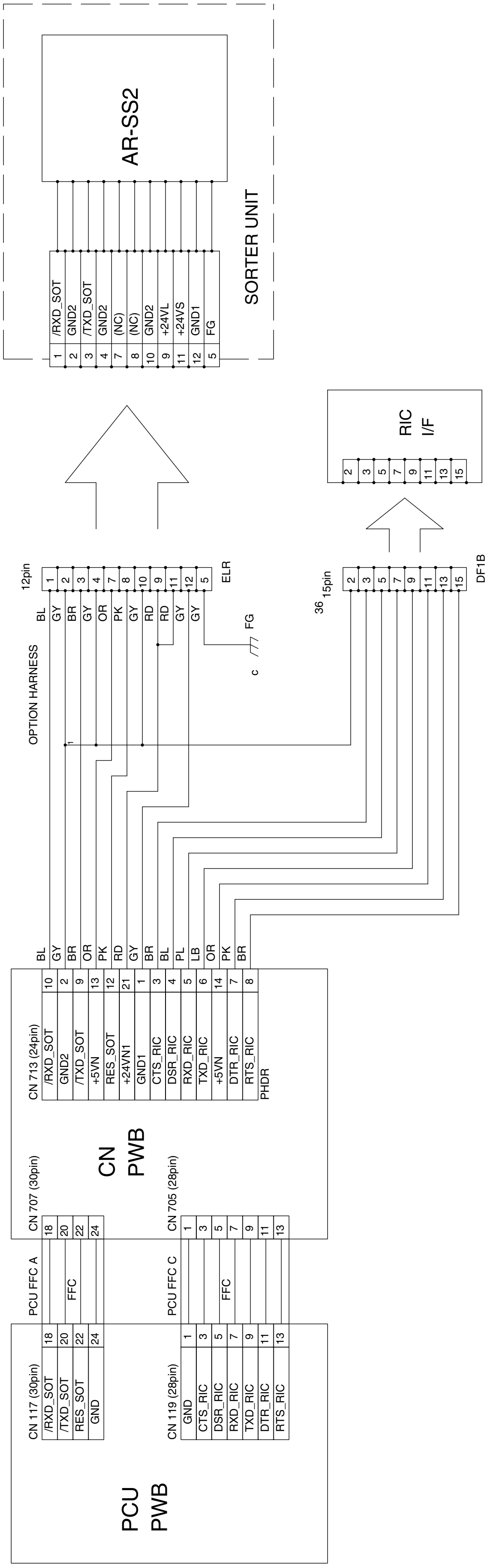
(AR-C160)



1ST LIFT UP UNIT
2ND LIFT UP UNIT
3RD LIFT UP UNIT
4TH LIFT UP UNIT
1ST PAPER FEEDING UNIT
2ND PAPER FEEDING UNIT
3RD PAPER FEEDING UNIT
4TH PAPER FEEDING UNIT
1CS LIFT UP
2CS LIFT UP
3CS LIFT UP
4CS LIFT UP
PCU PWB
CN107 (32pin)
CN106 (34pin)
DC HARNESS L
16pin
10pin
12pin
3pin
CPFS1
CPFC1
PED1
LUD1
LUM1
CPFS2
CPFC2
PED2
LUD2
LUM2
CPFS3
CPFC3
PED3
LUD3
LUM3
CPFS4
CPFC4
PED4
LUD4
LUM4
/CPFS1
+24V
/CPFC1
+5V
GND2
LUM1b
LUM1a
C1SS1
C1SS2
C1SS3
C1SS4
C1PD1
C1PD2
C2SS1
C2SS2
C2SS3
C2SS4
C2PD1
C2PD2
C3SS1
C3SS2
C3SS3
C3SS4
C3PD1
C3PD2
C4SS1
C4SS2
C4SS3
C4SS4
C4PD1
C4PD2
BR
BL
PL
LB
GY
PK
OR
RD
12
13
14
15

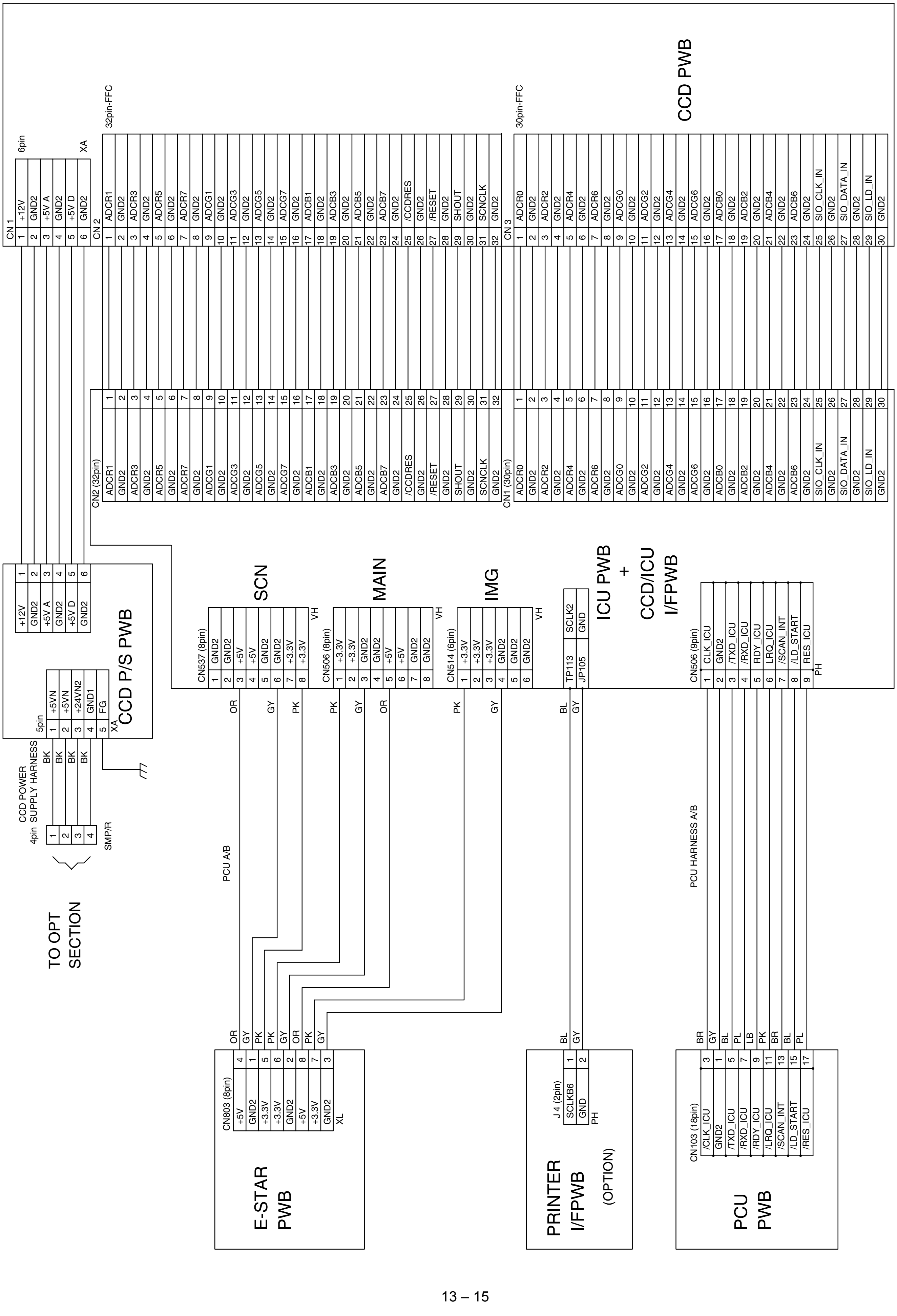

1ST LIFT UP UNIT
2ND LIFT UP UNIT
3RD LIFT UP UNIT
4TH LIFT UP UNIT
1ST PAPER FEEDING UNIT
2ND PAPER FEEDING UNIT
3RD PAPER FEEDING UNIT
4TH PAPER FEEDING UNIT
1CS LIFT UP
2CS LIFT UP
3CS LIFT UP
4CS LIFT UP
PCU PWB
CN107 (32pin)
CN106 (34pin)
DC HARNESS L
16pin
10pin
12pin
3pin
12
13
14
15
CPFS1
CPFC1
PED1
LUD1
LUM1
CPFS2
CPFC2
PED2
LUD2
LUM2
CPFS3
CPFC3
PED3
LUD3
LUM3
CPFS4
CPFC4
PED4
LUD4
LUM4
/CPFS1
+24V
/CPFC1
+5V
GND2
LUM1b
LUM1a
LUM2b
LUM2a
LUM3b
LUM3a
LUM4b
LUM4a
C1SS1
C1SS2
C1SS3
C1SS4
C1PD1
C1PD2
C2SS1
C2SS2
C2SS3
C2SS4
C2PD1
C2PD2
C3SS1
C3SS2
C3SS3
C3SS4
C3PD1
C3PD2
RSV-IN1
C4SS1
C4SS2
C4SS3
C4SS4
C4PD1
C4PD2
BR
BL
PL
LB
GY
PK
OR
RD

(13) EXTERIOR SECTION



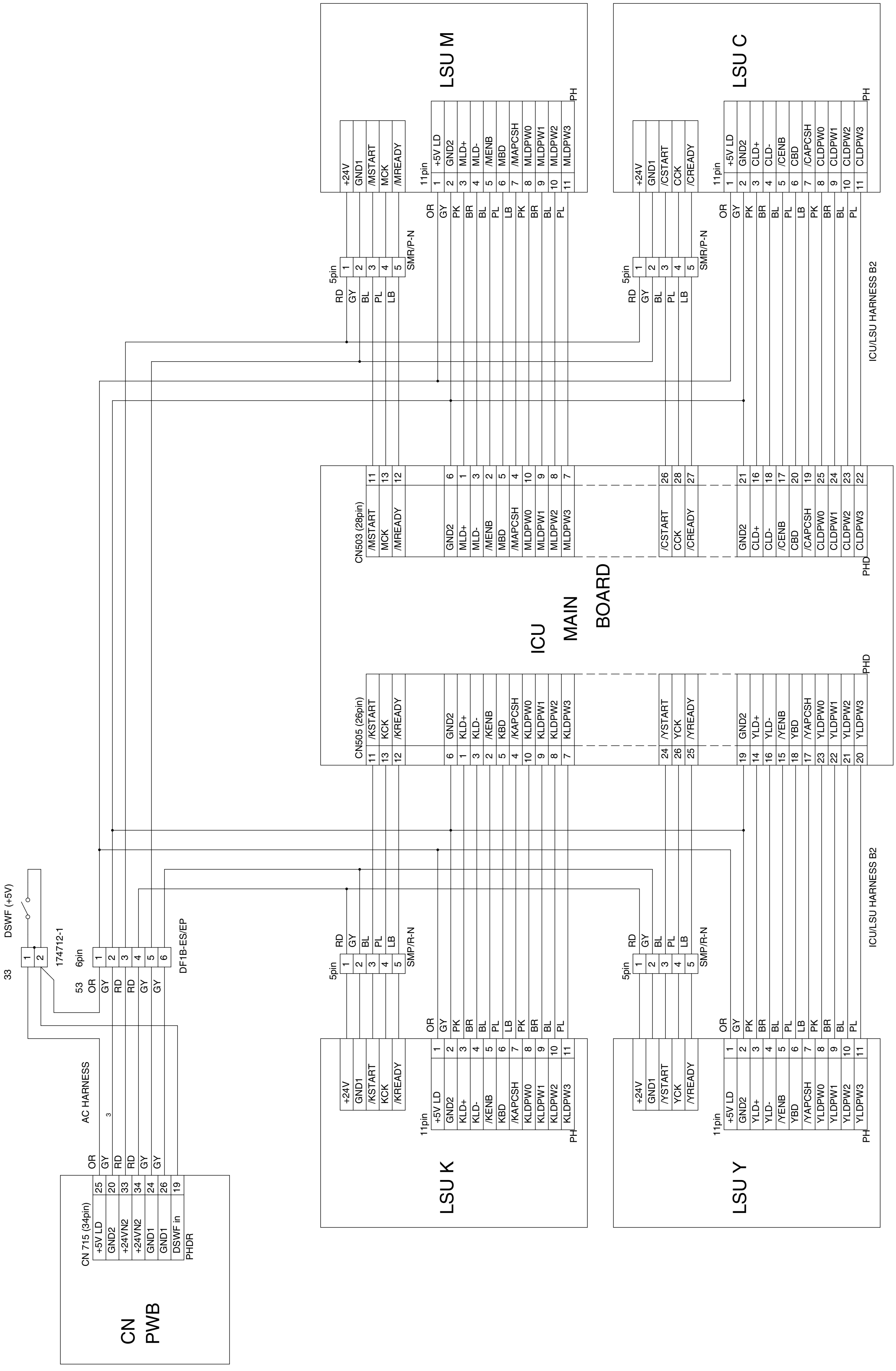
AR-SS2
SORTER UNIT
1 /RXD_SOT
2 GND2
3 /TXD_SOT
4 GND2
7 (NC)
8 (NC)
10 GND2
9 +24VL
11 +24VS
12 GND1
5 FG
RIC
I/F
2 3 5 7 9 11 13 15
12pin
1 2 3 4 7 8 10 9 11 12 5
ELR
BL GY BR GY OR PK GY RD RD GY GY
FG
c
OPTION HARNESS
1
36
15pin
2 3 5 7 9 11 13 15
DF1B
BL GY BR OR PK RD GY BR BL PL LB OR PK BR
CN 713 (24pin)
/RXD_SOT 10
GND2 2
/TXD_SOT 9
+5VN 13
RES_SOT 12
+24VN1 21
GND1 1
CTS_RIC 3
DSR_RIC 4
RXD_RIC 5
TXD_RIC 6
+5VN 14
DTR_RIC 7
RTS_RIC 8
PHDR
CN
PWB
CN 707 (30pin)
18 20 22 24
CN 705 (28pin)
1 3 5 7 9 11 13
PCU FFC A
FFC
PCU FFC C
FFC
CN 117 (30pin)
/RXD_SOT 18
/TXD_SOT 20
RES_SOT 22
GND 24
CN 119 (28pin)
GND 1
CTS_RIC 3
DSR_RIC 5
RXD_RIC 7
TXD_RIC 9
DTR_RIC 11
RTS_RIC 13
PCU
PWB

(14) CCD

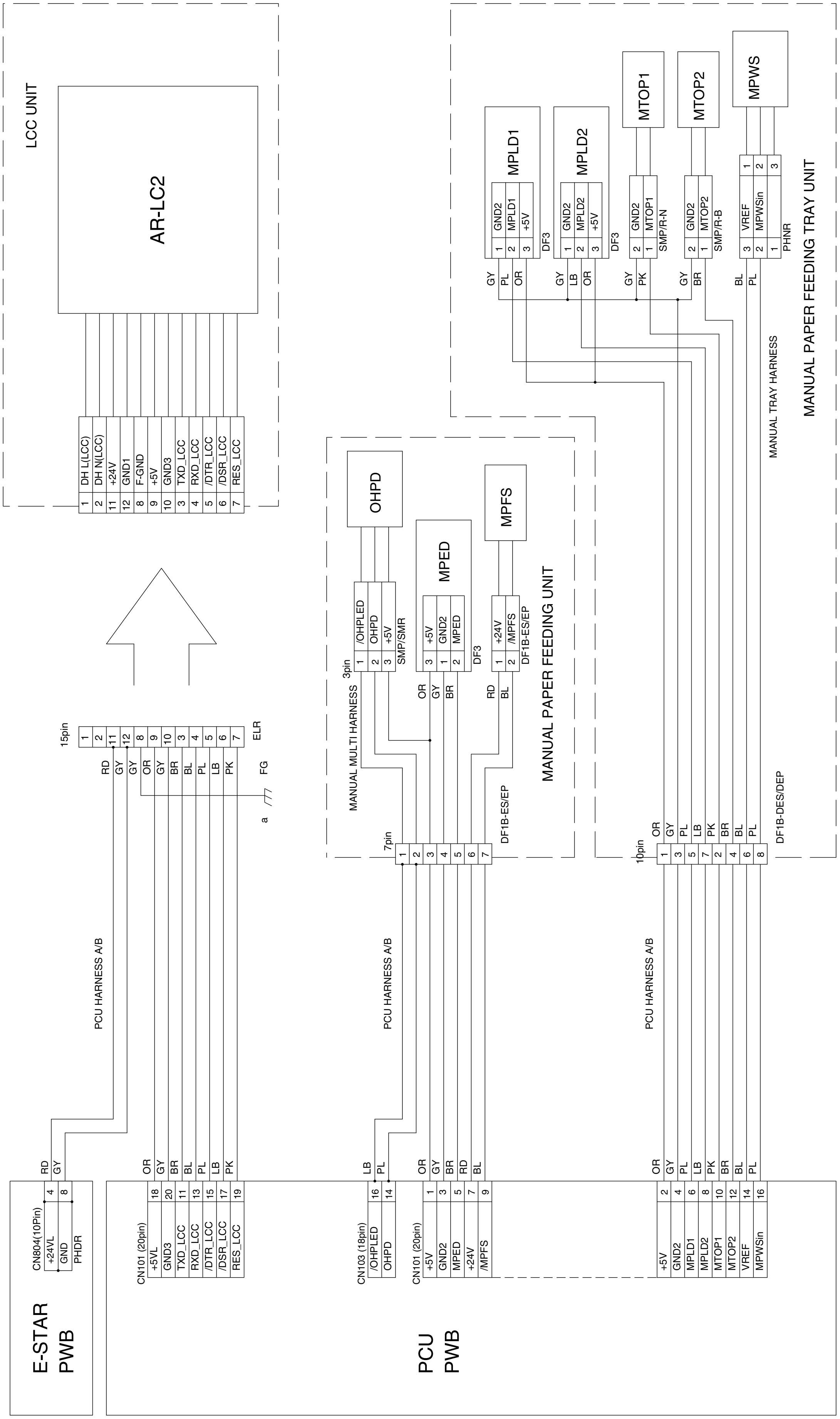


CCD PWB
CN 1
6pin
1 +12V
2 GND2
3 +5V A
4 GND2
5 +5V D
6 GND2
XA
CN 2
32pin-FFC
1 ADCR1
2 GND2
3 ADCR3
4 GND2
5 ADCR5
6 GND2
7 ADCR7
8 GND2
9 ADCG1
10 GND2
11 ADCG3
12 GND2
13 ADCG5
14 GND2
15 ADCG7
16 GND2
17 ADCB1
18 GND2
19 ADCB3
20 GND2
21 ADCB5
22 GND2
23 ADCB7
24 GND2
25 /CCDRES
26 GND2
27 /RESET
28 GND2
29 SHOUT
30 GND2
31 SCNCLK
32 GND2
CN 3
30pin-FFC
1 ADCR0
2 GND2
3 ADCR2
4 GND2
5 ADCR4
6 GND2
7 ADCR6
8 GND2
9 ADCG0
10 GND2
11 ADCG2
12 GND2
13 ADCG4
14 GND2
15 ADCG6
16 GND2
17 ADCB0
18 GND2
19 ADCB2
20 GND2
21 ADCB4
22 GND2
23 ADCB6
24 GND2
25 SIO_CLK_IN
26 GND2
27 SIO_DATA_IN
28 GND2
29 SIO_LD_IN
30 GND2
CN2 (32pin)
CN1 (30pin)
CCD P/S PWB
+12V
GND2
+5V A
GND2
+5V D
GND2
5pin
1 +5VN
2 +5VN
3 +24VN2
4 GND1
5 FG
XA
CCD POWER SUPPLY HARNESS
BK
BK
BK
BK
4pin
SMP/R
TO OPT SECTION
ICU PWB + CCD/ICU I/FPWB
SCN
CN537 (8pin)
1 GND2
2 GND2
3 +5V
4 +5V
5 GND2
6 GND2
7 +3.3V
8 +3.3V
VH
MAIN
CN506 (8pin)
1 +3.3V
2 +3.3V
3 GND2
4 GND2
5 +5V
6 +5V
7 GND2
8 GND2
VH
IMG
CN514 (6pin)
1 +3.3V
2 +3.3V
3 +3.3V
4 GND2
5 GND2
6 GND2
VH
TP113 SCLK2
JP105 GND
CN506 (9pin)
1 CLK_ICU
2 GND2
3 /TXD_ICU
4 /RXD_ICU
5 RDY_ICU
6 LRQ_ICU
7 /SCAN_INT
8 /LD_START
9 RES_ICU
PH
OR
GY
PK
PK
GY
OR
PK
GY
BL
GY
PCU A/B
PCU HARNESS A/B
E-STAR PWB
CN803 (8pin)
4 +5V
1 GND2
5 +3.3V
6 +3.3V
2 GND2
8 +5V
7 +3.3V
3 GND2
XL
OR GY PK PK GY OR PK GY
PRINTER I/FPWB
(OPTION)
J4 (2pin)
1 SCLKB6
2 GND
PH
BL GY
PCU PWB
CN103 (18pin)
3 /CLK_ICU
1 GND2
5 /TXD_ICU
7 /RXD_ICU
9 /RDY_ICU
11 /LRQ_ICU
13 /SCAN_INT
15 /LD_START
17 /RES_ICU
BR GY BL PL LB PK BR BL PL

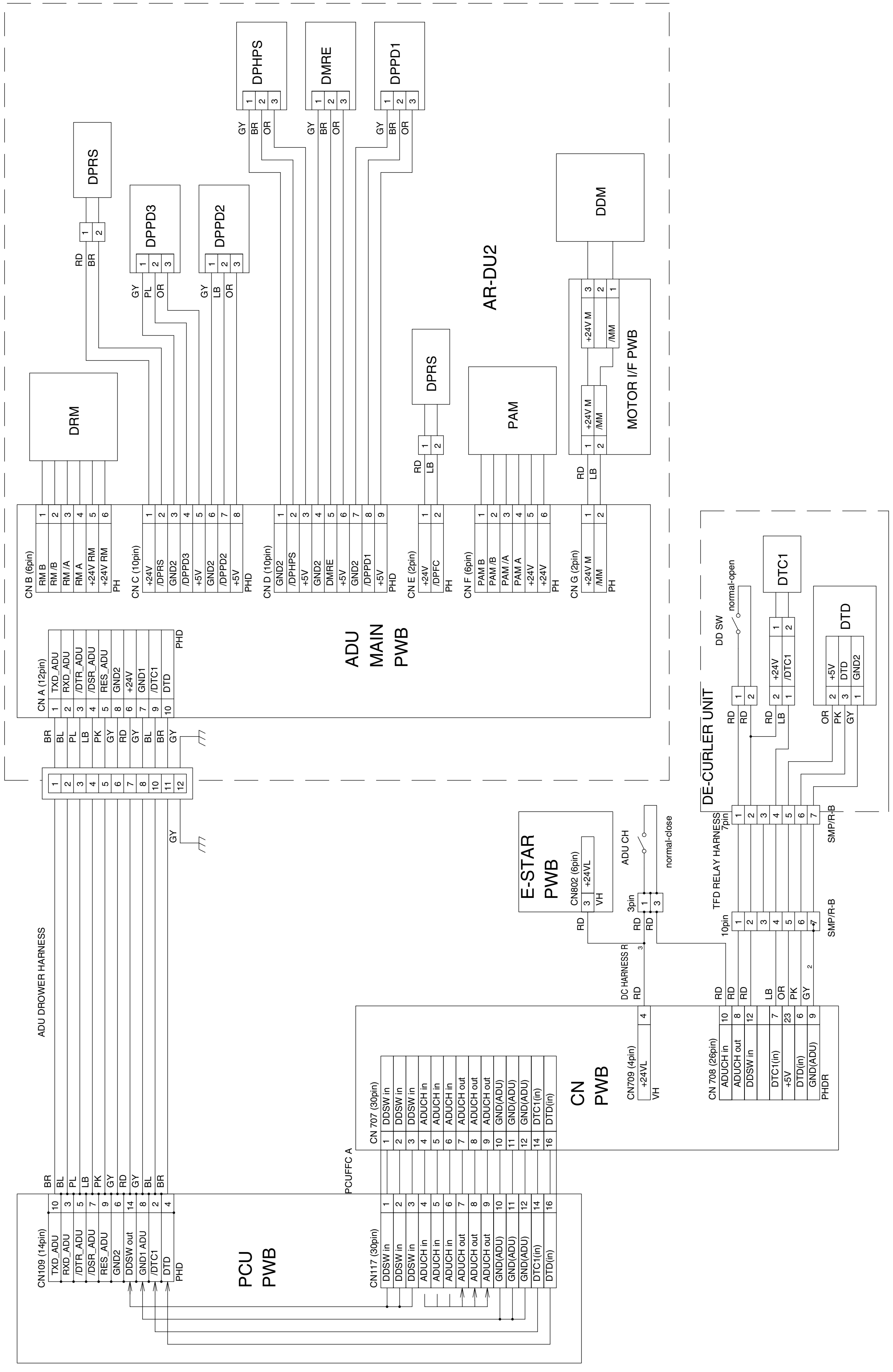
(15) LSU


LSU M
LSU C
LSU K
LSU Y
ICU MAIN BOARD
CN PWB
CN503 (28pin)
CN505 (26pin)
CN 715 (34pin)
PHD
PHDR
PH
11pin
5pin
6pin
SMR/P-N
SMP/R-N
ICU/LSU HARNESS B2
AC HARNESS
DSWF (+5V)
174712-1
DF1B-ES/EP
33
53
+24V
GND1
/MSTART
MCK
/MREADY
+5V LD
GND2
MLD+
MLD-
/MENB
MBD
/MAPCSH
MLDPW0
MLDPW1
MLDPW2
MLDPW3
/CSTART
CCK
/CREADY
CLD+
CLD-
/CENB
CBD
/CAPCSH
CLDPW0
CLDPW1
CLDPW2
CLDPW3
/KSTART
KCK
/KREADY
KLD+
KLD-
/KENB
KBD
/KAPCSH
KLDPW0
KLDPW1
KLDPW2
KLDPW3
/YSTART
YCK
/YREADY
YLD+
YLD-
/YENB
YBD
/YAPCSH
YLDPW0
YLDPW1
YLDPW2
YLDPW3
+24VN2
DSWF in
OR
GY
RD
BL
PL
LB
PK
BR

(16) MANUAL PAPER FEEDING, LCC

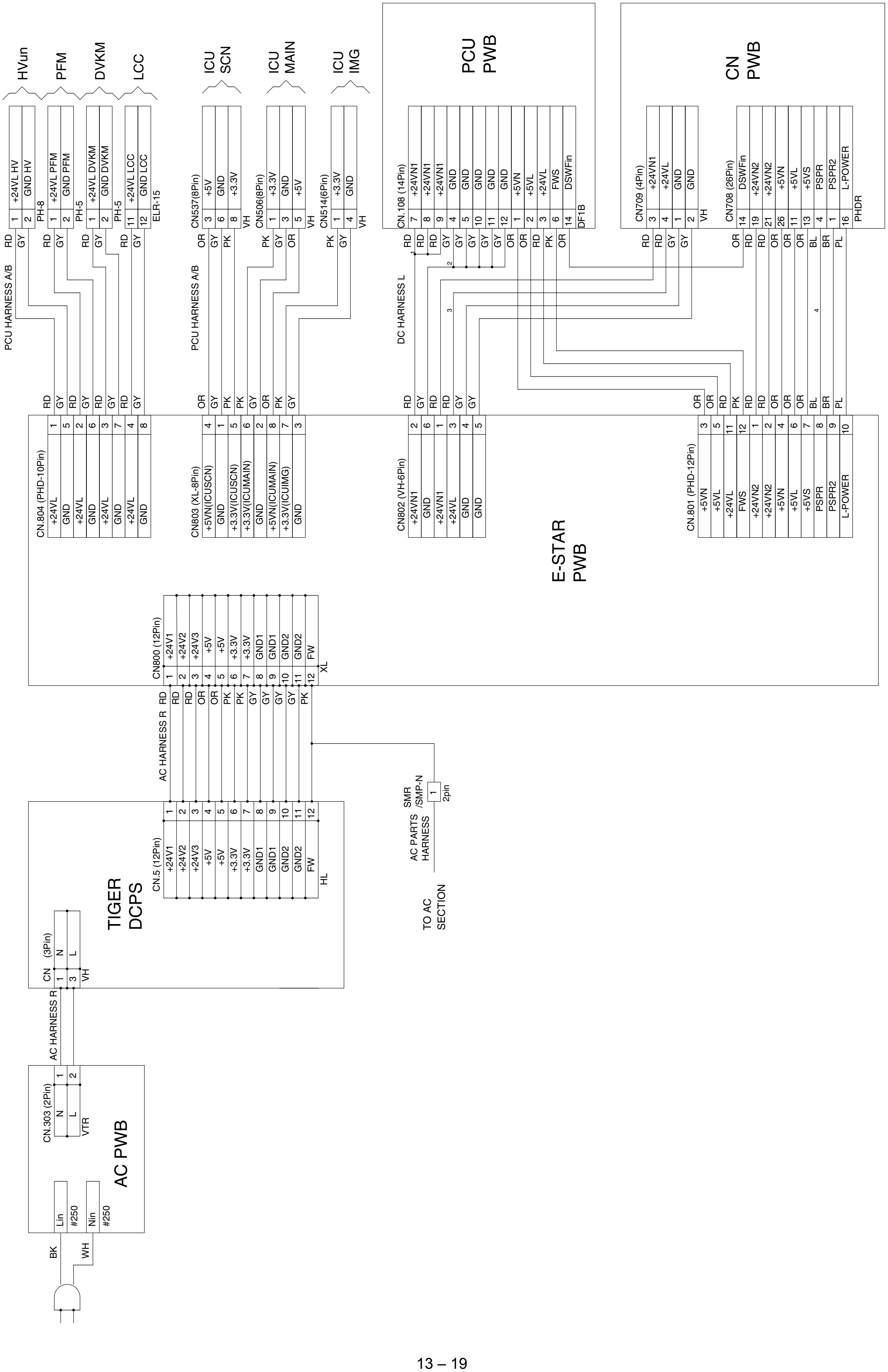

LCC UNIT
AR-LC2
DH L(LCC)
DH N(LCC)
+24V
GND1
F-GND
+5V
GND3
TXD_LCC
RXD_LCC
/DTR_LCC
/DSR_LCC
RES_LCC
15pin
ELR
FG
a
PCU HARNESS A/B
E-STAR PWB
CN804(10Pin)
+24VL
GND
PHDR
PCU PWB
CN101 (20pin)
+5VL
GND3
TXD_LCC
RXD_LCC
/DTR_LCC
/DSR_LCC
RES_LCC
CN103 (18pin)
/OHPLED
OHPD
CN101 (20pin)
+5V
GND2
MPED
+24V
/MPFS
+5V
GND2
MPLD1
MPLD2
MTOP1
MTOP2
VREF
MPWSin
OHPD
MPED
MPFS
/OHPLED
OHPD
+5V
SMP/SMR
3pin
MANUAL MULTI HARNESS
+5V
GND2
MPED
DF3
+24V
/MPFS
DF1B-ES/EP
MANUAL PAPER FEEDING UNIT
7pin
DF1B-ES/EP
MPLD1
MPLD2
MTOP1
MTOP2
MPWS
GND2
MPLD1
+5V
DF3
GND2
MPLD2
+5V
DF3
GND2
MTOP1
SMP/R-N
GND2
MTOP2
SMP/R-B
VREF
MPWSin
PHNR
MANUAL TRAY HARNESS
MANUAL PAPER FEEDING TRAY UNIT
10pin
DF1B-DES/DEP
RD
GY
OR
BR
BL
PL
LB
PK

(17) ADU

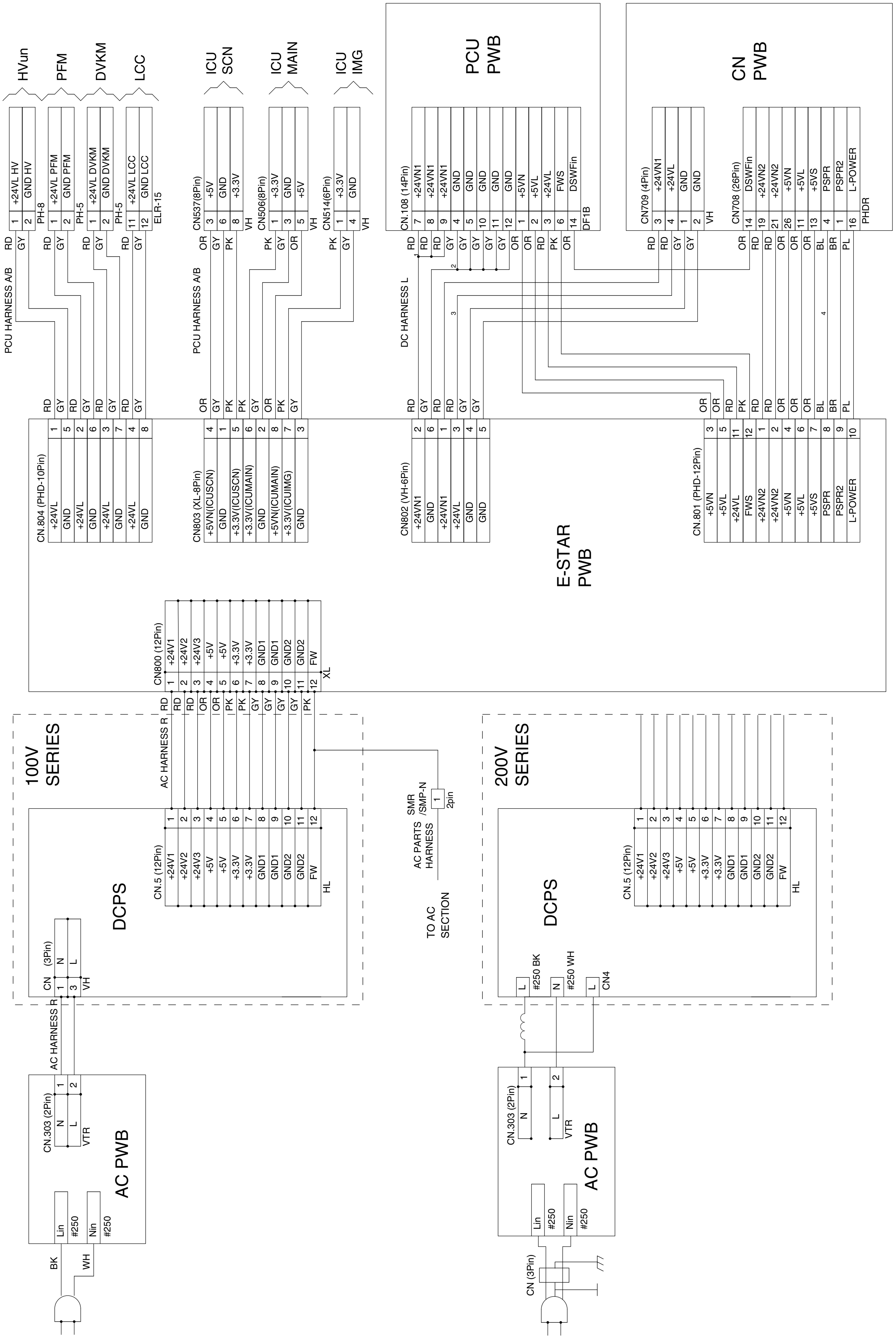

AR-DU2
DRM
DPRS
DPPD3
DPPD2
DPHPS
DMRE
DPPD1
DDM
PAM
MOTOR I/F PWB
+24V M
/MM
ADU MAIN PWB
CN B (6pin)
RM B
RM /B
RM /A
RM A
+24V RM
PH
CN C (10pin)
+24V
/DPRS
GND2
/DPPD3
+5V
/DPPD2
PHD
CN D (10pin)
/DPHPS
DMRE
/DPPD1
CN E (2pin)
/DPFC
CN F (6pin)
PAM B
PAM /B
PAM /A
PAM A
CN G (2pin)
CN A (12pin)
TXD_ADU
RXD_ADU
/DTR_ADU
/DSR_ADU
RES_ADU
GND1
/DTC1
DTD
DE-CURLER UNIT
DD SW
normal-open
DTC1
DTD
+5V
7pin
SMP/R-B
TFD RELAY HARNESS
10pin
E-STAR PWB
CN802 (6pin)
+24VL
VH
ADU CH
normal-close
3pin
DC HARNESS R
ADU DROWER HARNESS
CN PWB
CN709 (4pin)
CN 708 (26pin)
ADUCH in
ADUCH out
DDSW in
DTC1(in)
DTD(in)
GND(ADU)
PHDR
CN 707 (30pin)
PCUFFC A
PCU PWB
CN109 (14pin)
DDSW out
GND1 ADU
CN117 (30pin)
RD
BR
GY
PL
OR
LB
BL
PK

(18) DCPS I/F SECTION

(AR-C160)



HVun
PFM
DVKM
LCC
ICU SCN
ICU MAIN
ICU IMG
PCU PWB
CN PWB
+24VL HV
GND HV
PH-8
+24VL PFM
GND PFM
PH-5
+24VL DVKM
GND DVKM
PH-5
+24VL LCC
GND LCC
ELR-15
CN537(8Pin)
+5V
GND
+3.3V
VH
CN506(8Pin)
+3.3V
GND
+5V
VH
CN514(6Pin)
+3.3V
GND
VH
CN.108 (14Pin)
+24VN1
+24VN1
+24VN1
GND
GND
GND
GND
GND
+5VN
+5VL
+24VL
FWS
DSWFin
DF1B
CN709 (4Pin)
+24VN1
+24VL
GND
GND
VH
CN708 (26Pin)
DSWFin
+24VN2
+24VN2
+5VN
+5VL
+5VS
PSPR
PSPR2
L-POWER
PHDR
PCU HARNESS A/B
PCU HARNESS A/B
DC HARNESS L
CN.804 (PHD-10Pin)
+24VL
GND
+24VL
GND
+24VL
GND
+24VL
GND
CN803 (XL-8Pin)
+5VN(ICUSCN)
GND
+3.3V(ICUSCN)
+3.3V(ICUMAIN)
GND
+5VN(ICUMAIN)
+3.3V(ICUIMG)
GND
CN802 (VH-6Pin)
+24VN1
GND
+24VN1
+24VL
GND
GND
CN.801 (PHD-12Pin)
+5VN
+5VL
+24VL
FWS
+24VN2
+24VN2
+5VN
+5VL
+5VS
PSPR
PSPR2
L-POWER
E-STAR PWB
CN800 (12Pin)
+24V1
+24V2
+24V3
+5V
+5V
+3.3V
+3.3V
GND1
GND1
GND2
GND2
FW
XL
AC HARNESS R
SMR /SMP-N
2pin
AC PARTS HARNESS
TO AC SECTION
CN.5 (12Pin)
+24V1
+24V2
+24V3
+5V
+5V
+3.3V
+3.3V
GND1
GND1
GND2
GND2
FW
HL
TIGER DCPS
CN (3Pin)
N
L
VH
AC HARNESS R
CN.303 (2Pin)
N
L
VTR
AC PWB
Lin
#250
Nin
#250
BK
WH
RD
GY
OR
PK
BL
BR
PL


HVun
PFM
DVKM
LCC
ICU SCN
ICU MAIN
ICU IMG
PCU PWB
CN PWB
1 +24VL HV
2 GND HV
PH-8
1 +24VL PFM
2 GND PFM
PH-5
1 +24VL DVKM
2 GND DVKM
PH-5
11 +24VL LCC
12 GND LCC
ELR-15
CN537(8Pin)
3 +5V
6 GND
8 +3.3V
VH
CN506(8Pin)
1 +3.3V
3 GND
5 +5V
VH
CN514(6Pin)
1 +3.3V
4 GND
VH
CN.108 (14Pin)
7 +24VN1
8 +24VN1
9 +24VN1
4 GND
5 GND
10 GND
11 GND
12 GND
1 +5VN
2 +5VL
3 +24VL
6 FWS
14 DSWFin
DF1B
CN709 (4Pin)
3 +24VN1
4 +24VL
1 GND
2 GND
VH
CN708 (26Pin)
14 DSWFin
19 +24VN2
21 +24VN2
26 +5VN
11 +5VL
13 +5VS
4 PSPR
1 PSPR2
16 L-POWER
PHDR
PCU HARNESS A/B
PCU HARNESS A/B
DC HARNESS L
RD
GY
OR
PK
BL
BR
PL
1
2
3
4
CN.804 (PHD-10Pin)
1 +24VL
5 GND
2 +24VL
6 GND
3 +24VL
7 GND
4 +24VL
8 GND
CN803 (XL-8Pin)
4 +5VN(ICUSCN)
1 GND
5 +3.3V(ICUSCN)
6 +3.3V(ICUMAIN)
2 GND
8 +5VN(ICUMAIN)
7 +3.3V(ICUIMG)
3 GND
CN802 (VH-6Pin)
2 +24VN1
6 GND
1 +24VN1
3 +24VL
4 GND
5 GND
CN.801 (PHD-12Pin)
3 +5VN
5 +5VL
11 +24VL
12 FWS
1 +24VN2
2 +24VN2
4 +5VN
6 +5VL
7 +5VS
8 PSPR
9 PSPR2
10 L-POWER
E-STAR PWB
CN800 (12Pin)
1 +24V1
2 +24V2
3 +24V3
4 +5V
5 +5V
6 +3.3V
7 +3.3V
8 GND1
9 GND1
10 GND2
11 GND2
12 FW
XL
100V SERIES
AC HARNESS R
CN.5 (12Pin)
1 +24V1
2 +24V2
3 +24V3
4 +5V
5 +5V
6 +3.3V
7 +3.3V
8 GND1
9 GND1
10 GND2
11 GND2
12 FW
HL
DCPS
CN (3Pin)
1 N
3 L
VH
AC HARNESS R
CN.303 (2Pin)
1 N
2 L
VTR
AC PWB
Lin #250
Nin #250
BK
WH
SMR /SMP-N
1
2pin
AC PARTS HARNESS
TO AC SECTION
200V SERIES
CN.5 (12Pin)
1 +24V1
2 +24V2
3 +24V3
4 +5V
5 +5V
6 +3.3V
7 +3.3V
8 GND1
9 GND1
10 GND2
11 GND2
12 FW
HL
DCPS
L #250 BK
N #250 WH
L CN4
CN.303 (2Pin)
1 N
2 L
VTR
AC PWB
Lin #250
Nin #250
CN (3Pin)

[14] OTHERS

1. List of adjustment/setup values

Simulation Code		Content/Item		Set range	Default	Model				NOTE	Data store location
Main	Sub.					AR-C100	AR-C150	AR-C250	AR-C160/C270		
07	01	Aging setup	A: Aging	ON/OFF	OFF	❍	❍	❍	❍	The setup data are not stored.	
			B: JAM detection ON/OFF setup	ON/OFF	OFF	❍	❍	❍	❍		
			C: Fusing ON/OFF setup	ON/OFF	OFF	❍	❍	❍	❍		
			D: Warm-up ON/OFF setup	ON/OFF	OFF		❍	❍	❍		
			E: Aging intermittent ON/OFF setup	ON/OFF	OFF	❍	❍	❍	❍		
			F: Developing unit detection ON/OFF setup	ON/OFF	OFF	❍	❍	❍	❍		
			G: Oil check ON/OFF setup	ON/OFF	OFF			❍	❍		
08	01	Developing bias output voltage adjustment	A: (Black)	0 –700	325	❍	❍	❍	❍		EEPROM (PCU PWB)
			B: (Cyan)	0 –700	325	❍	❍	❍	❍		
			C: (Magenta)	0 –700	325	❍	❍	❍	❍		
			D: (Yellow)	0 –700	325	❍	❍	❍	❍		
	02	Charging/Grid setup (AR-C100/C150)	A: (Black)	200 –900	525	❍	❍				EEPROM (PCU PWB)
			B: (Cyan)	200 –900	525	❍	❍				
			C: (Magenta)	200 –900	525	❍	❍				
			D: (Yellow)	200 –900	525	❍	❍				
		Charging/Grid setup (AR-C160/C250)	A: (Black)	200 –900	545 (555)			❍	❍	( ) AR-C160	EEPROM (PCU PWB)
			B: (Cyan)	200 –900	545 (555)			❍	❍		
			C: (Magenta)	200 –900	545 (555)			❍	❍		
			D: (Yellow)	200 –900	545 (555)			❍	❍		
	06	Transfer voltage adjustment (Old)	A: Normal (Face) print (Black)	51 –255	178	❍	❍				EEPROM (PCU PWB)
			B: Back print (Black)	51 –255	178	❍	❍				
			C: OHP print (Black)	51 –255	204	❍	❍				
			D: Thick paper print (Black)	51 –255	204	❍	❍				
			A: Normal (Face) print (Cyan)	51 –255	164	❍	❍				
			B: Back print (Cyan)	51 –255	164	❍	❍				
			C: OHP print (Cyan)	51 –255	209	❍	❍				
			D: Thick paper print (Cyan)	51 –255	187	❍	❍				
			A: Normal (Face) print (Magenta)	51 –255	123	❍	❍				
			B: Back print (Magenta)	51 –255	123	❍	❍				
			C: OHP print (Magenta)	51 –255	167	❍	❍				
			D: Thick paper print (Magenta)	51 –255	138	❍	❍				
			A: Normal (Face) print (Yellow)	51 –255	123	❍	❍				
			B: Back print (Yellow)	51 –255	123	❍	❍				
			C: OHP print (Yellow)	51 –255	182	❍	❍				
			D: Thick paper print (Yellow)	51 –255	138	❍	❍				
21	01	Maintenance cycle setup	Maintenance timing (Print quantity)	0 –6	4	❍	❍	❍	❍	0. 5K 1. 10K 2. 15K 3. 20K 4. 40K 5. 80K 6. FREE	EEPROM (PCU PWB)
			Maintenance message redisplay	0 –2	1	❍				0. 500 sheets 1. 1000 sheets 2. 2000 sheets	EEPROM (PCU PWB)
24	05	Reset the developer counter [YMCK]	Select the color (Black, Cyan, Magenta, Yellow)		0	❍	❍	❍	❍		EEPROM (PCU PWB)
	07	Reset the OPC drum correction counter	Select the color (Black, Cyan, Magenta, Yellow)		0	❍	❍	❍	❍		EEPROM (PCU PWB)
25	02	Toner concentration reference control level	(Black)	0 –255	128	❍	❍	❍	❍	The adjustment value cannot be entered directly	EEPROM (PCU PWB)
			(Cyan)	0 –255	128	❍	❍	❍	❍		
			(Magenta)	0 –255	128	❍	❍	❍	❍		
			(Yellow)	0 –255	128	❍	❍	❍	❍		
26	01	Option setup	RADF	Option/ None	None		❍	❍	❍		EEPROM (PCU PWB)
			DUPLEX / PAPER FEED TRAY	Option/ None	None		❍	❍	❍		
			FINISHER	Option/ None	None			❍	❍	The AR-C150 is not capable of installation of the finisher.	
			PRINTER	Option/ None	None		❍	❍	❍		

Simulation Code		Content/Item		Set range	Default	Model				NOTE	Data store location
Main	Sub.					AR-C100	AR-C150	AR-C250	AR-C160/C270		
26	02	Tray/size setup	LCC paper size	0 – 3	0		❍	❍	m		EEPROM (PCU PWB)
			8.5" × 13" paper size detection	0 – 1	0		❍	❍	❍		
			Manual paper feed paper display type	0 – 2	1		❍	❍	❍		
	03	Auditor mode setup	Auditor mode	1 – 3 (New)	1		❍	❍	❍	1. P10 2. AR-EC1 3. VENDOR (Mode 1 – 3)	EEPROM (PCU PWB)
				1 – 3 (Old)	1		❍			1. P10 2. CARD 3. Other	
				1 – 2 (Old)	1			❍		1. P10 2. AR-EC1	
				1 – 4	3	❍				1. MODE1 (AR-C100) 2. MODE2 3. MODE3 4. NONE	
			Receipt display	0 – 1	0	❍					
	05	Counter mode setup	A: B/W (A3/A3 Wide/11 × 17) copy (total)	1 – 2	2		❍	❍	❍		EEPROM (PCU PWB)
					1	❍					
			B: Color (A3/A3 Wide/11 × 17) copy (total)	1 – 2	2		❍	❍	❍		
					1	❍					
			C: B/W (A3/A3 Wide/11 × 17) copy (maintenance)	1 – 2	2	❍	❍	❍	❍		
			D: Color (A3/A3 Wide/11 × 17) copy (maintenance)	1 – 2	2	❍	❍	❍	❍		
			E: B/W (A3/A3 Wide/11 × 17) copy (developer)	1 – 2	2	❍	❍	❍	❍		
			F: Color (A3/A3 Wide/11 × 17) copy (developer)	1 – 2	2	❍	❍	❍	❍		
	06	Destination setup	Destination	1 – 9	1		❍	❍	❍		EEPROM (PCU PWB)
		User logo setup	User logo	0 – 10	0	❍				AR-C100 only	
	18	Toner save mode setup	A: Toner save mode	0 – 1	0	❍	❍	❍	❍	Only for Japan and UK	EEPROM (PCU PWB)
	22	Language setup	Language				❍	❍	❍	English (US) / Japanese / German / French / Danish / Italian / Spanish / Swedish / English (UK)	EEPROM (PCU PWB)
	28	AC power voltage setup	AC power voltage	100 / 120 / 230	100	❍				The set value (default) differs depending on the destination.	EEPROM (PCU PWB)
					120		❍	❍	❍		
					230		❍	❍	❍		
	30	CE mark conformity control inhibition	A: CE mark set value	0 – 1	0	❍	❍	❍	❍	The set value (default) differs depending on the destination.	EEPROM (PCU PWB)
	32	Fan motor RPM setup	A: VFM	0 – 100	15	❍	❍	❍	❍		EEPROM (PCU PWB)
			B: VFM(HEAT)	0 – 100	15	❍	❍	❍	❍		
			C: CFM1	0 – 100	0	❍	❍	❍	❍		
			D: LSUFM	0 – 100	15	❍	❍	❍	❍		
			E:DCFM	0 – 100	0	❍	❍	❍	❍		
	35	Trouble memory mode setup	A: Trouble memory mode	0 – 1	0	❍	❍	❍	❍		EEPROM (PCU PWB)
	45	Copy fee setup	A: Black/white copy	0 – 999	10	❍					EEPROM (PCU PWB)
			B: Color copy	0 – 999	50	❍					
			C: A3 color copy	0 – 999	100	❍					
			D: Copy fee display	0 – 1	1	❍					
	52	Non-print paper (insertion paper, cover paper) count up YES/NO setup	A: Count up YES/NO	0 – 1	*	❍	❍	❍	❍	Japan/Australia : 0, Others : 1	EEPROM (PCU PWB)
	53	User auto color calibration (Copy color balance/density auto adjustment) YES/NO setup	A: YES/NO	0 – 1	*		❍	❍	❍	AR-C150: 0 AR-C160/C250: 1	EEPROM (PCU PWB)
	54	LCD brightness adjustment	Dark – Light	10 – 100	75			❍			EEPROM (PCU PWB)

Simulation Code		Content/Item		Set range	Default	Model				NOTE	Data store location
Main	Sub.					AR-C100	AR-C150	AR-C250	AR-C160/C270		
26	55	Fusing capability (Image process) setup in the heavy paper mode (AR-C150)	ENABLE/DISABLE	ON/OFF	*		❍			The default value differs depending on the destination.	EEPROM (ICU PWB)
		Select the gamma characteristics in the color copy mode (AR-C250)	ENABLE/DISABLE	ON/OFF	*			❍	❍	The default value differs depending on the destination.	
27	01	PC/MODEM communication trouble (U7-00) detection YES/NO setup	A: PC/MODEM communication trouble (U7-00) detection YES/NO	0 – 1	0	❍	❍	❍	❍		EEPROM (PCU PWB)
	02	Host computer/Modem number setup	Host computer/MODEM number			❍	❍	❍	❍		EEPROM (PCU PWB)
	03	Machine/Host computer MODEM ID number setup	Machine/Host computer modem ID number			❍	❍	❍	❍		EEPROM (PCU PWB)
	05	Tag number setup	Tag number			❍	❍	❍	❍		EEPROM (PCU PWB)
	06	Manual service call Enable/Disable setup	A: Manual service call YES/NO	0 – 1	0	❍	❍	❍	❍		EEPROM (PCU PWB)
29	04	Printer mode fee-charging setup		0 – 2 (0 – 4) *2	0		❍	❍	❍		EEPROM (PCU PWB)
40	02	Manual feed tray paper width detection level adjustment	A: Paper guide max. position level				❍	❍	❍	The adjustment value cannot be entered directly.	EEPROM (PCU PWB)
			B: Paper guide min. position level				❍	❍	❍		
	05	OHP sensor detection level adjustment					❍	❍	❍	The adjustment value cannot be entered directly.	EEPROM (PCU PWB)
	06	OHP sensor adjustment parameter set up	A: OHP sheet use Enable/Disable setup	0 – 1	1		❍	❍	❍		EEPROM (PCU PWB)
			B: OHP sensor adjustment target level	0 – 255	200		❍	❍	❍		
			C: OHP paper judgement reference level	0 – 255	120		❍	❍	❍		
41	02	Original size sensor adjustment	Adjustment value (PD1 – 7)	0 – 255	128	❍	❍	❍	❍	The adjustment value cannot be entered directly.	EEPROM (PCU PWB)
43	01	Fusing temperature setup (AR-C100/C150)	A: Temperature set value (upper)	70 – 200		❍	❍			The set value (default) differs depending on the destination. Refer to the details of SIM 43-01.	EEPROM (PCU PWB)
			B: Temperature set value (lower)	70 – 200		❍	❍				
			C: Temperature set value (Ready upper)	70 – 200		❍	❍				
			D: Temperature set value (Ready lower)	70 – 200		❍	❍				
			E: Temperature set value (Energy saving upper)	70 – 200		❍	❍				
			F: Temperature set value (Energy saving reset)	70 – 200		❍	❍				
			G: Temperature set value (Thick paper upper)	70 – 200			❍				
			H: Temperature set value (Thick paper lower)	70 – 200			❍				
			I: Temperature set value (OHP upper)	70 – 200			❍				
			J: Temperature set value (OHP lower)	70 – 200			❍				

*2: AR-C250/C270

Simulation Code		Content/Item		Set range	Default	Model				NOTE	Data store location
Main	Sub.					AR-C100	AR-C150	AR-C250	AR-C160/C270		
43	01	Fusing temperature setup (AR-C250/C160/C270)	A: Temperature set value (upper)	70 – 200				❍	❍	The set value (default) differs depending on the destination. Refer to the details of SIM 43-01.	EEPROM (PCU PWB)
			B: Temperature set value (lower)	70 – 200				❍	❍		
			C: Temperature set value (Ready upper)	70 – 200				❍	❍		
			D: Temperature set value (Ready lower)	70 – 200				❍	❍		
			E: Temperature set value (Energy saving upper)	70 – 200				❍	❍		
			F: Temperature set value (Energy saving reset)	70 – 200				❍	❍		
			G: Temperature set value (Thick paper (1) upper)	70 – 210				❍	❍		
			H: Temperature set value (Thick paper (1) lower)	70 – 200				❍	❍		
			I: Temperature set value (Thick paper (2) upper)	70 – 210				❍	❍		
			J: Temperature set value (Thick paper (2) lower)	70 – 200				❍	❍		
			K: Temperature set value (OHP upper)	70 – 200				❍	❍		
			L: Temperature set value (OHP lower)	70 – 200				❍	❍		
	07	Fusing oil pump operation setup	A: Pump ON time	5 – 50	12	❍	❍	❍	❍		EEPROM (PCU PWB)
			B: Pump interval time	17 – 250	130	❍	❍	❍	❍		
44	01	Image density correction (Process control) operation mode setup	Operation mode		All ON	❍	❍	❍	❍		EEPROM (PCU PWB)
	04	Image density correction (Process control) target level setup	A: Color image density sensor	0 – 200	102	❍	❍	❍	❍		EEPROM (PCU PWB)
			B: Black image density sensor	0 – 200	133	❍	❍	❍	❍		
			C: Target density level (Yellow)	0 – 200	90	❍	❍	❍	❍		
			D: Target density level (Magenta)	0 – 200	100	❍	❍	❍	❍		
			E: Target density level (Cyan)	0 – 200	83	❍	❍	❍	❍		
			F: Target density level (Black)	0 – 200	15	❍	❍				
					22			❍	❍		
	05	Image density correction (Process control) initial developing bias voltage setup	A: (Black)	0 – 700	325	❍	❍	❍	❍		EEPROM (PCU PWB)
			B: (Cyan)	0 – 700	325	❍	❍	❍	❍		
			C: (Magenta)	0 – 700	325	❍	❍	❍	❍		
			D: (Yellow)	0 – 700	325	❍	❍	❍	❍		
	06	Image forming section correction (Process control) forcible execution				❍	❍	❍	❍	The adjustment value cannot be entered directly.	EEPROM (PCU PWB)
	13	Image density sensor sense level adjustment	Sensor LED level	0 – 255	128	❍	❍	❍	❍	The adjustment value cannot be entered directly.	EEPROM (PCU PWB)
			Dark voltage level	0 – 255	30	❍	❍	❍	❍		
			Calibration sheet sense level	0 – 255	102	❍	❍	❍	❍		
			Calibration plate sense level	0 – 255	80	❍	❍	❍	❍		
	20	OPC drum phase adjustment (Old)	A: Print mode	1 – 3	3	❍	❍			The set up data is not stored.	EEPROM (PCU PWB)
			B: Cyan OPC drum phase	0 – 330	60	❍	❍				
			C: Magenta OPC drum phase	0 – 330	120	❍	❍				
			D: Yellow OPC drum phase	0 – 330	180	❍	❍				
			E: Paper (Paper tray)	1 – 6	5	❍	❍			The set up data is not stored.	
	21	Half tone image correction initial setup	Initial setup data	0 – 255	—	❍	❍	❍	❍	The set up data cannot be entered directly.	EEPROM (ICU PWB)
	23	Image density sensor sense position adjustment	Adjustment value	40 – 60	50	❍	❍	❍	❍	The adjustment value cannot be entered directly.	EEPROM (ICU PWB)
	26	Half tone image correction forcible execution	Correction data	245 – 755 (1 – 1999) ∗1	500 (1000) ∗1	❍	❍	❍	❍	The correction data cannot be entered directly.	EEPROM (ICU PWB)
	27	Half tone image correction data reset	Correction data	245 – 755 (1 – 1999) ∗1	500 (1000) ∗1	❍	❍	❍	❍		EEPROM (ICU PWB)

∗1: AR-C160/C270

Simulation Code		Content/Item		Set range	Default	Model				NOTE	Data store location
Main	Sub.					AR-C100	AR-C150	AR-C250	AR-C160/C270		
44	30	Transfer voltage adjustment (New)	A: Normal (Face) print (Black)	51 – 255	178	❍	❍	❍	❍		EEPROM (PCU PWB)
			B: Back print (Black)	51 – 255	178	❍	❍	❍	❍		
			C: OHP print (Black)	51 – 255	204	❍	❍	❍	❍		
			D: Thick paper print (Black)	51 – 255	204	❍	❍	❍	❍		
			A: Normal (Face) print (Cyan)	51 – 255	164	❍	❍	❍	❍		
			B: Back print (Cyan)	51 – 255	164	❍	❍	❍	❍		
			C: OHP print (Cyan)	51 – 255	209	❍	❍	❍	❍		
			D: Thick paper print (Cyan)	51 – 255	187	❍	❍	❍	❍		
			A: Normal (Face) print (Magenta)	51 – 255	123	❍	❍	❍	❍		
			B: Back print (Magenta)	51 – 255	123	❍	❍	❍	❍		
			C: OHP print (Magenta)	51 – 255	167	❍	❍	❍	❍		
			D: Thick paper print (Magenta)	51 – 255	138	❍	❍	❍	❍		
			A: Normal (Face) print (Yellow)	51 – 255	123	❍	❍	❍	❍		
			B: Back print (Yellow)	51 – 255	123	❍	❍	❍	❍		
			C: OHP print (Yellow)	51 – 255	182	❍	❍	❍	❍		
			D: Thick paper print (Yellow)	51 – 255	138	❍	❍	❍	❍		
	31	OPC drum phase adjustment (New)	A: Print mode	1 – 3		❍	❍	❍	❍		EEPROM (PCU PWB)
			B: Cyan OPC drum phase	0 – 359	45	❍	❍	❍	❍		
			C: Magenta OPC drum phase	0 – 359	135	❍	❍	❍	❍		
			D: Yellow OPC drum phase	0 – 359	180	❍	❍	❍	❍		
			E: Paper (Paper tray)	1 – 6		❍	❍	❍	❍		
46	01	Copy density adjustment (Color mode) (AR-C150)	A: Text/Photo mode	1 – 99	50		❍				EEPROM (ICU PWB)
			B: Text mode	1 – 99	50		❍				
			C: Printed photo mode	1 – 99	50		❍				
			D: Photo mode	1 – 99	50		❍				
			E: Map mode	1 – 99	50		❍				
		Copy density adjustment (Color mode) (AR-C160/C250/C270)	A: Text printed photo mode	1 – 99	50			❍	❍		
			B: Text photo mode	1 – 99	50			❍	❍		
			C: Text mode	1 – 99	50			❍	❍		
			D: Printed photo mode	1 – 99	50			❍	❍		
			E: Photo mode	1 – 99	50			❍	❍		
			F: Map mode	1 – 99	50			❍	❍		
			G: Text printed photo mode (Copy document mode)	1 – 99	46			❍	❍		
			H: Text mode (Copy document mode)	1 – 99	46			❍	❍		
			I: Printed photo mode (Copy document mode)	1 – 99	46			❍	❍		
	02	Copy density adjustment (Black/white mode) (AR-C150)	A: Text/Photo, Auto pre-scan mode	1 – 99	50		❍				EEPROM (ICU PWB)
			B: Text/Photo, Auto mode	1 – 99	50		❍				
			C: Text/Photo,Manual mode	1 – 99	50		❍				
			D: Text, Auto pre-scan mode	1 – 99	50		❍				
			E: Text, Auto mode	1 – 99	50		❍				
			F: Text, Manual mode	1 – 99	50		❍				
			G: Printed photo mode	1 – 99	50		❍				
			H: Photo mode	1 – 99	50		❍				
			I: Map mode	1 – 99	50		❍				
		Copy density adjustment (Black/white mode) (AR-C160/C250/C270)	A: Text printed photo, Auto pre-scan mode	1 – 99	50			❍	❍		
			B: Text printed photo, Auto mode	1 – 99	50			❍	❍		
			C: Text printed photo, Manual mode	1 – 99	50			❍	❍		
			D: Text photo, Auto pre-scan mode	1 – 99	50			❍	❍		
			E: Text photo, Auto mode	1 – 99	50			❍	❍		
			F: Text photo, Manual mode	1 – 99	50			❍	❍		
			G: Text, Auto pre-scan mode	1 – 99	50			❍	❍		
			H: Text, Auto mode	1 – 99	50			❍	❍		
			I: Text, Manual mode	1 – 99	50			❍	❍		
			J: Printed photo mode	1 – 99	50			❍	❍		
			K: Photo mode	1 – 99	50			❍	❍		
			L: Map mode	1 – 99	50			❍	❍		
			M: Text printed photo, Manual mode (Copy document mode)	1 – 99	50			❍	❍		
			N: Text, Manual mode (Copy document mode)	1 – 99	50			❍	❍		
			O: Printed photo mode (Copy document mode)	1 – 99	50			❍	❍		

Simulation Code		Content/Item		Set range	Default	Model				NOTE	Data store location
Main	Sub.					AR-C100	AR-C150	AR-C250	AR-C160/ C270		
46	06	Shading correction reference value setup	A: CCD odd number offset (Blue)	0 – 255	150	❍	❍	❍	❍		EEPROM (ICU PWB)
			B: CCD Even number offset (Blue)	0 – 255	150	❍	❍	❍	❍		
			C: CCD odd number gain (Blue)	0 – 255	120	❍	❍				
					150			❍	❍		
			D: CCD even number gain (Blue)	0 – 255	120	❍	❍				
					150			❍	❍		
			A: CCD odd number offset (Green)	0 – 255	150	❍	❍	❍	❍		
			B: CCD even number offset (Green)	0 – 255	150	❍	❍	❍	❍		
			C: CCD odd number gain (Green)	0 – 255	140	❍	❍				
					130			❍	❍		
			D: CCD even number gain (Green)	0 – 255	140	❍	❍				
					130			❍	❍		
			A: CCD odd number offset (Red)	0 – 255	150	❍	❍	❍	❍		
			B: CCD Even number offset (Red)	0 – 255	150	❍	❍	❍	❍		
			C: .CCD odd number gain (Red)	0 – 255	180	❍	❍				
					160			❍	❍		
			D: CCD odd number gain (Red)	0 – 255	180	❍	❍				
					160			❍	❍		
	10	Copy color balance, density adjustment (Color, Text photo mode) (AR-C100/C150)	A – O: Black density 1 – 15	245 – 755 (1 – 999) ∗1	500	❍	❍				EEPROM (ICU PWB)
			A – O: Cyan density 1 – 15	245 – 755 (1 – 999) ∗1	500	❍	❍				
			A – O: Magenta density 1 – 15	245 – 755 (1 – 999) ∗1	500	❍	❍				
			A – O: Yellow density 1 – 15	245 – 755 (1 – 999) ∗1	500	❍	❍				
		Copy color balance, density adjustment (Color, copy document mode) (AR-C250/C160/C270)	A – O: Copy document mode black density 1 – 15	245 – 755 (1 – 999) ∗1	500			❍	❍		
			A – O: Copy document mode cyan density 1 – 15	245 – 755 (1 – 999) ∗1	500			❍	❍		
			A – O: Copy document mode magenta density 1 – 15	245 – 755 (1 – 999) ∗1	500			❍	❍		
			A – O: Copy document mode yellow density 1 – 15	245 – 755 (1 – 999) ∗1	500			❍	❍		
	11	Copy color balance, density adjustment (Color, Text mode)	A – O: Black density 1 – 15	245 – 755 (1 – 999) ∗1	500		❍	❍	❍		EEPROM (ICU PWB)
			A – O: Cyan density 1 – 15	245 – 755 (1 – 999) ∗1	500		❍	❍	❍		
			A – O: Magenta density 1 – 15	245 – 755 (1 – 999) ∗1	500		❍	❍	❍		
			A – O: Yellow density 1 – 15	245 – 755 (1 – 999) ∗1	500		❍	❍	❍		
	12	Copy color balance, density adjustment (Color, Printed Photo mode) (AR-C150)	A – O: Black density 1 – 15	245 – 755 (1 – 999) ∗1	500		❍				EEPROM (ICU PWB)
			A – O: Cyan density 1 – 15	245 – 755 (1 – 999) ∗1	500		❍				
			A – O: Magenta density 1 – 15	245 – 755 (1 – 999) ∗1	500		❍				
			A – O: Yellow density 1 – 15	245 – 755 (1 – 999) ∗1	500		❍				
		Copy color balance, density adjustment (Color, Text printed photo/Printed photo mode) (AR-C250/C160/C270)	A – O: Text printed photo/Printed photo black density 1 – 15	245 – 755 (1 – 999) ∗1	500			❍	❍		
			A – O: Text printed photo/Printed photo cyan density 1 – 15	245 – 755 (1 – 999) ∗1	500			❍	❍		
			A – O: Text printed photo/Printed photo magenta density 1 – 15	245 – 755 (1 – 999) ∗1	500			❍	❍		
			A – O: Text printed photo/Printed photo yellow density 1 – 15	245 – 755 (1 – 999) ∗1	500			❍	❍		

∗1: AR-C160/C270

Simulation Code		Content/Item		Set range	Default	Model				NOTE	Data store location
Main	Sub.					AR-C100	AR-C150	AR-C250	AR-C160/C270		
46	13	Copy color balance, density adjustment (Color, Photo mode) (AR-C100/C150)	A – O: Black density 1 – 15	245 – 755 (1 – 999) *1	500	○	○				EEPROM (ICU PWB)
			A – O: Cyan density 1 – 15	245 – 755 (1 – 999) *1	500	○	○				
			A – O: Magenta density 1 – 15	245 – 755 (1 – 999) *1	500	○	○				
			A – O: Yellow density 1 – 15	245 – 755 (1 – 999) *1	500	○	○				
		Copy color balance, density adjustment (Color, Text photo/Photo mode) (AR-C250/C160/C270)	A – O: Text photo/Photo black density 1 – 15	245 – 755 (1 – 999) *1	500			○	○		
			A – O: Text photo/Photo cyan density 1 – 15	245 – 755 (1 – 999) *1	500			○	○		
			A – O: Text photo/Photo magenta density 1 – 15	245 – 755 (1 – 999) *1	500			○	○		
			A – O: Text photo/Photo yellow density 1 – 15	245 – 755 (1 – 999) *1	500			○	○		
	14	Copy color balance, density adjustment (Color, Map mode)	A – O: Black density 1 – 15	245 – 755 (1 – 999) *1	500		○	○	○		EEPROM (ICU PWB)
			A – O: Cyan density 1 – 15	245 – 755 (1 – 999) *1	500		○	○	○		
			A – O: Magenta density 1 – 15	245 – 755 (1 – 999) *1	500		○	○	○		
			A – O: Yellow density 1 – 15	245 – 755 (1 – 999) *1	500		○	○	○		
	15	Copy density adjustment (Monochrome, Text/Photo mode) (AR-C150)	A – O: Black B/W density 1 – 15	245 – 755 (1 – 999) *1	500	○	○				EEPROM (ICU PWB)
		Copy density adjustment (Monochrome, Copy document mode mode) (AR-C250/C160/C270)	A – O: Black B/W density 1 – 15	245 – 755 (1 – 999) *1	500			○	○		
	16	Copy density adjustment (Monochrome, Text mode)	A – O: Black B/W density 1 – 15	245 – 755 (1 – 999) *1	500		○	○	○		EEPROM (ICU PWB)
	17	Copy density adjustment (Monochrome, Printed Photo mode) (AR-C150)	A – O: Black B/W density 1 – 15	245 – 755 (1 – 999) *1	500		○				EEPROM (ICU PWB)
		Copy density adjustment (Color, Text printed photo, Printed Photo mode) (AR-C250/C160/C270)	A – O: Black B/W density 1 – 15	245 – 755 (1 – 999) *1	500			○	○		
	18	Copy density adjustment (Monochrome, Photo mode) (AR-C100/C150)	A – O: Black B/W density 1 – 15	245 – 755 (1 – 999) *1	500	○	○				EEPROM (ICU PWB)
		Copy density adjustment (Monochrome, Text photo/Photo mode) (AR-C250/C160/C270)	A – O: Black B/W density 1 – 15	245 – 755 (1 – 999) *1	500			○	○		
	19	Copy density adjustment (Monochrome, Map mode)	A – O: Black B/W density 1 – 15	245 – 755 (1 – 999) *1	500		○	○	○		EEPROM (ICU PWB)
	20	Print (printer engine) copy color balance/density (gamma) adjustment (manual adjustment)	A – O: Black density 1 – 15	245 – 755 (1 – 999) *1	500	○	○	○	○	Without print	EEPROM (ICU PWB)
			A – O: Cyan density 1 – 15	245 – 755 (1 – 999) *1	500	○	○	○	○		
			A – O: Magenta density 1 – 15	245 – 755 (1 – 999) *1	500	○	○	○	○		
			A – O: Yellow density 1 – 15	245 – 755 (1 – 999) *1	500	○	○	○	○		
	21	Print (printer engine) copy color balance/density (gamma) adjustment (manual adjustment)	A – O: Black density 1 – 15	245 – 755 (1 – 999) *1	500	○	○	○	○	With print	EEPROM (ICU PWB)
			A – O: Cyan density 1 – 15	245 – 755 (1 – 999) *1	500	○	○	○	○		
			A – O: Magenta density 1 – 15	245 – 755 (1 – 999) *1	500	○	○	○	○		
			A – O: Yellow density 1 – 15	245 – 755 (1 – 999) *1	500	○	○	○	○		
	22	Print (printer engine) copy color balance/density (gamma) adjustment (auto adjustment) (AR-C100)	A: Print quantity	0 – 99	1	○				The setup data is not stored. (AR-C100)	EEPROM (ICU PWB)
			B: Print mode	1 – 4	1	○					
			C: Paper (Paper tray)	1 – 6	2	○					
			Color balance (gamma) adjustment data			○				The adjustment value cannot be entered directly. (AR-C100)	EEPROM (ICU PWB)

*1: AR-C160/C270

Simulation Code		Content/Item		Set range	Default	Model				NOTE	Data store location
Main	Sub.					AR-C100	AR-C150	AR-C250	AR-C160/C270		
46	23	Half tone high density correction setup		ON/OFF	OFF		❍	❍	❍		EEPROM (ICU PWB)
	24	Print (printer engine) copy color balance/density (gamma) adjustment (auto adjustment) (AR-C150/C250)					❍	❍	❍	The adjustment value cannot be entered directly.	EEPROM (ICU PWB)
	25	Copy color balance adjustment (Mono color copy mode)	C (RED)	0 – 255	0			❍	❍		EEPROM (ICU PWB)
			C (GREEN)	0 – 255	255			❍	❍		
			C (BLUE)	0 – 255	255			❍	❍		
			C (PURPLE)	0 – 255	148			❍	❍		
			C (ORANGE)	0 – 255	38			❍	❍		
			C (BROWN)	0 – 255	131			❍	❍		
			M (RED)	0 – 255	255			❍	❍		
			M (GREEN)	0 – 255	0			❍	❍		
			M (BLUE)	0 – 255	255			❍	❍		
			M (PURPLE)	0 – 255	238			❍	❍		
			M (ORANGE)	0 – 255	140			❍	❍		
			M (BROWN)	0 – 255	255			❍	❍		
			Y (RED)	0 – 255	255			❍	❍		
			Y (GREEN)	0 – 255	255			❍	❍		
			Y (BLUE)	0 – 255	0			❍	❍		
			Y (PURPLE)	0 – 255	105			❍	❍		
			Y (ORANGE)	0 – 255	255			❍	❍		
			Y (BROWN)	0 – 255	229			❍	❍		
	26	Copy color balance default setup (Mono color copy mode)	C (RED)	0 – 255	0			❍	❍		EEPROM (ICU PWB)
			C (GREEN)	0 – 255	255			❍	❍		
			C (BLUE)	0 – 255	255			❍	❍		
			C (PURPLE)	0 – 255	148			❍	❍		
			C (ORANGE)	0 – 255	38			❍	❍		
			C (BROWN)	0 – 255	131			❍	❍		
			M (RED)	0 – 255	255			❍	❍		
			M (GREEN)	0 – 255	0			❍	❍		
			M (BLUE)	0 – 255	255			❍	❍		
			M (PURPLE)	0 – 255	238			❍	❍		
			M (ORANGE)	0 – 255	140			❍	❍		
			M (BROWN)	0 – 255	255			❍	❍		
			Y (RED)	0 – 255	255			❍	❍		
			Y (GREEN)	0 – 255	255			❍	❍		
			Y (BLUE)	0 – 255	0			❍	❍		
			Y (PURPLE)	0 – 255	105			❍	❍		
			Y (ORANGE)	0 – 255	255			❍	❍		
			Y (BROWN)	0 – 255	229			❍	❍		
	27	Black toner component image gamma adjustment	A: Color mode	0 – 100	50 (70)			❍	❍	( ) AR-C160/C270	EEPROM (ICU PWB)
			B: Monochrome mode ∗1	0 – 100	50				❍		
48	01	Copy magnification ratio adjustment	A: Sub scanning direction copy magnification ratio adjustment	1 – 30	15	❍	❍	❍	❍		EEPROM (PCU PWB)
			B: Main scanning direction copy magnification ratio adjustment	1 – 99	50	❍	❍	❍	❍		
	06	Motor RPM adjustment	A: Resist motor speed	1 – 99	55	❍	❍	❍	❍		EEPROM (PCU PWB)
			B: Transfer belt speed	1 – 99	51	❍	❍	❍	❍		
			C: Fusing rotation speed (greater than B4)	1 – 99	40/45/ 50/55	❍	❍	❍	❍	The set value (default) differs depending on the destination.	
			D: Fusing rotation speed (smaller than B4)	1 – 99	40/55 50/60	❍	❍	❍	❍		
			E: Drum motor speed (Black/White)	1 – 99	42	❍	❍	❍	❍		
			F: Drum motor speed (Color)	1 – 99	37	❍	❍	❍	❍		
			G: Paper feed transfer motor speed	1 – 99	50				❍		
			H: Developing motor (Black/White)	1 – 99	50				❍		
			I: Developing motor (Color)	1 – 99	50				❍		

∗1: AR-C160/C270

Simulation Code		Content/Item		Set range	Default	Model				NOTE	Data store location
Main	Sub.					AR-C100	AR-C150	AR-C250	AR-C160/C270		
50	01	Copy lead edge adjustment	A: RRC-A (Distance between MHP and the image lead edge)	0 – 99	50	❍	❍	❍	❍		EEPROM (PCU PWB)
			B: RRC-B (Resist roller ON timing)	0 – 99	50	❍	❍	❍	❍		
			C: DEN-A (Lead edge void quantity)	0 – 99	40	❍	❍	❍	❍		
			D: DEN-B (Rear edge void quantity)	0 – 99	30	❍	❍	❍	❍		
			E: IMAGE LOSS (Lead edge image loss quantity)	0 – 99	40	❍	❍	❍	❍		
	02	Lead edge adjustment (Simple method)	A: L1	0 – 99	0	❍	❍	❍	❍		EEPROM (PCU PWB)
			B: L2	0 – 99	0	❍	❍	❍	❍		
			C: DEN-A (Lead edge void quantity)	0 – 99	40	❍	❍	❍	❍		
			D: DEN-B (Rear edge void quantity)	0 – 99	30	❍	❍	❍	❍		
			E: IMAGE LOSS (Lead edge image loss)	0 – 99	40	❍	❍	❍	❍		
50	10	Paper image off-center adjustment	A: Manual paper feed tray	30 – 70	50		❍	❍	❍		EEPROM (ICU PWB)
			B: Paper feed tray 1	20 – 80	50	❍	❍	❍	❍		
			C: Paper feed tray 2	20 – 80	50	❍	❍	❍	❍		
			D: Paper feed tray 3	20 – 80	50	❍	❍	❍	❍		
			E: Paper feed tray 4	20 – 80	50	❍	❍	❍	❍		
			F: Large capacity tray (LCC)	30 – 70	50		❍	❍	❍		
			G: Duplex (ADU)	20 – 80	30		❍	❍	❍		
			H: (Black) image main scanning direction print magnification ratio	1 – 199	100	❍	❍	❍	❍		
	12	Original off-center adjustment	A: Original table mode	20 – 80	50	❍	❍	❍	❍		EEPROM (ICU PWB)
			B: RADF mode	20 – 80	50	❍	❍	❍	❍		
	20	Color image registration adjustment (Main scanning direction)	A: Tandem adjustment value (Cyan)	1 – 199	100	❍	❍	❍	❍		EEPROM (ICU PWB)
			B: Main scanning direction print magnification ratio adjustment value (Cyan)	1 – 199	100	❍	❍	❍	❍		
			C: Tandem adjustment value (Magenta)	1 – 199	100	❍	❍	❍	❍		
			D: Main scanning direction print magnification ratio adjustment value (Magenta)	1 – 199	100	❍	❍	❍	❍		
			E: Tandem adjustment value (Yellow)	1 – 199	100	❍	❍	❍	❍		
			F: Main scanning direction print magnification ratio adjustment value (Yellow)	1 – 199	100	❍	❍	❍	❍		
	21	Color image registration adjustment Sub scanning direction)	A: Black → Cyan	1 – 199	100	❍	❍	❍	❍		EEPROM (ICU PWB)
			B: .Cyan → Magenta	1 – 199	100	❍	❍	❍	❍		
			C: Magenta – Yellow	1 – 199	100	❍	❍	❍	❍		
			D: Print quantity	1 – 999	1	❍	❍	❍	❍	The setup data is not stored.	
			E: Paper (Paper tray)	1 – 6	3	❍	❍	❍	❍		
	22	Image registration adjustment (Auto)				❍	❍	❍	❍	The adjustment value cannot be entered directly	EEPROM (ICU PWB)
51	01	Separation pawl ON timing adjustment	A: Separation pawl operation timing	30 – 550	290	❍	❍	❍	❍		EEPROM (PCU PWB)
			B: Transfer voltage ON timing	1 – 990	360	❍	❍	❍	❍		
			C: Transfer voltage OFF timing	1 – 990	510	❍	❍	❍	❍		
	02	Paper resist quantity adjustment	A: Manual paper feed tray	0 – 99	60 (40)	❍	❍	❍	❍	( ) AR-C160/C270	EEPROM (PCU PWB)
			B: Paper feed tray	0 – 99	60	❍	❍	❍	❍		
			C: Large capacity paper feed tray (LCC)	0 – 99	70	❍	❍	❍	❍		
			D: Duplex (ADU)	0 – 99	70		❍	❍	❍		

Simulation Code		Content/Item		Set range	Default	Model				NOTE	Data store location
Main	Sub.					AR-C100	AR-C150	AR-C250	AR-C160/C270		
52	01	Duplex paper stacking adjustment	A: Manual paper feed tray (Adjustment value)	0 – 99	50		❍	❍	❍		EEPROM (PCU PWB)
			B: Paper feed tray 1 (Adjustment value)	0 – 99	50		❍	❍	❍		
			C: Paper feed tray 2 (Adjustment value)	0 – 99	50		❍	❍	❍		
			D: Paper feed tray 3 (Adjustment value)	0 – 99	50		❍	❍	❍		
			E: Large capacity tray (LCC) (adjustment value)	0 – 99	50		❍	❍	❍		
			F: Paper (Paper tray)	1 – 5	3		❍	❍	❍	The setup data is not stored.	
53	01	Original stop position adjustment (RADF)	A: Face mode	0 – 15	8		❍	❍	❍		EEPROM (RADF CONTROL PWB)
			B: Back mode	0 – 15	8		❍	❍	❍		
	02	Sensor adjustment (RADF)					❍	❍	❍	The adjustment value cannot be entered directly	EEPROM (RADF CONTROL PWB)
63	03	Scanner (CCD) gamma adjustment (correction) (Normal document mode)				❍	❍	❍	❍	The adjustment value cannot be entered directly.	EEPROM (ICU PWB)
	05	Scanner (CCD) gamma default setup (Normal document mode)				❍	❍	❍	❍	The adjustment value cannot be entered directly.	EEPROM (ICU PWB)
	07	Service target color balance (gamma) setup for auto color balance adjustment (SIM 46-24)					❍	❍	❍	The setup data cannot be entered directly	EEPROM (ICU PWB)
	08	Service target color balance (gamma) is set to default (standard) color balance (gamma) for auto color balance adjustment (SIM 46-24)				❍	❍	❍	❍	The setup data cannot be entered directly	EEPROM (ICU PWB)
	09	Scanner (CCD) gamma adjustment (Correction) (Copy document mode)						❍	❍	The adjustment value cannot be entered directly	EEPROM (ICU PWB)
	10	Scanner (CCD) gamma default setup (Copy document mode)						❍	❍	The correction data cannot be entered directly	EEPROM (ICU PWB)
65	01	Touch panel adjustment	1. Coordinate X on the left upper of the screen		258	❍	❍	❍	❍	The adjustment value cannot be entered directly.	EEPROM (PCU PWB)
			2. Coordinate Y on the left upper of the screen		245	❍	❍	❍	❍		
			3. Coordinate X on the right upper of the screen		831	❍	❍	❍	❍		
			4. Coordinate Y on the right upper of the screen		247	❍	❍	❍	❍		
			5. Coordinate X on the left lower of the screen		257	❍	❍	❍	❍		
			6. Coordinate Y on the left lower of the screen		834	❍	❍	❍	❍		
			7. Coordinate X on the right lower of the screen		831	❍	❍	❍	❍		
			8. Coordinate Y on the right lower of the screen		828	❍	❍	❍	❍		

[Necessary works when replacing the PWB or in case of memory trouble]

The EEPROM of the following PWB includes all the setup and adjustment data.

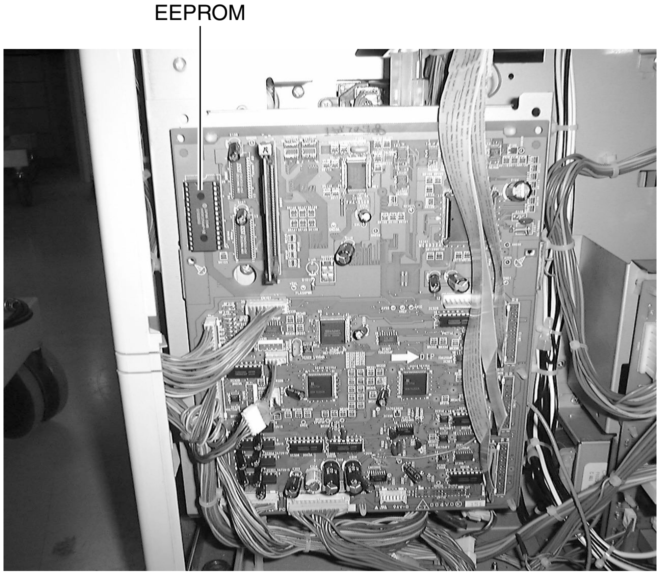
When replacing the PWB or in case of memory trouble, therefore, the memory data must be replaced or reentered.

＊ EEPROM on PCU MAIN PWB (Stores the setup and adjustment data of the engine section mainly.)

＊ EEPROM on ICU MAIN PWB (Stores the setup and adjustment data related to image process mainly.)

(Case 1) Works after replacing PCU MAIN PWB (without memory trouble)

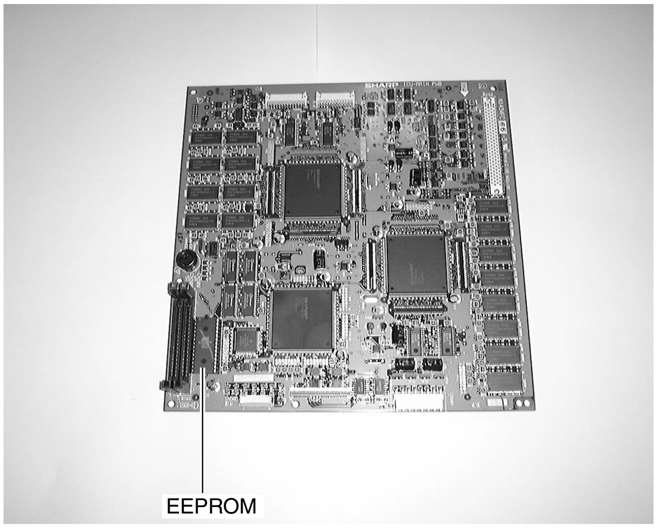
1) Remove the EEPROM from the defective PCU MAIN PWB.
2) Install the EEPROM removed in the above procedure to a new PCU MAIN PWB.



PCU MAIN PWB

(Case 2) Works after replacing ICU MAIN PWB (without memory trouble)

1) Remove the EEPROM from the defective ICU MAIN PWB.
2) Install the EEPROM removed in the above procedure to a new ICU MAIN PWB.



ICU MAIN PWB

(Case 3) Work in case of memory trouble (U2)

Refer to the adjustment and setup values recorded before occurrence of the trouble and reenter the adjustment and setup values by simulations.

The items which must be reentered are listed on the adjustment and setup value list in the Service Manual.

(Note) Always record the adjustment and setup data for the use in case of memory trouble (U2). SIM 22-6 allows to print the most adjustment and setup data.
Since, however, this adjustment and setup value list printed by the simulation does not include all the items, refer to the adjustment and setup value list in the Service Manual in the reentry procedure.
Also note that all the items cannot be entered with keys. Some items require actual adjustment procedures for storing the data.

Occurrence of memory trouble (U2-30) means destruction of the machine serial number data in the EEPROM on the PCU MAIN PWB and the EEPROM on the ICU MAIN PWB.

Therefore, the machine serial number must be entered both to the EEPROM on the PCU MAIN PWB and to the EEPROM on the ICU MAIN PWB.

Since, however, reentry of the machine serial number cannot be performed with normal simulations. In this case, inquire of the local manager for reentry of the machine serial number.

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